Genie U Water System

USER MANUAL

RephiLe Bioscience, Ltd.

This Manual Is Applicable to the Following Genie U Models

RG0U01000	Genie U 12 Ultrapure water system
RG0U010T0	Genie U 12 Ultrapure water system, with TOC
RG0U02000	Genie U 24 Ultrapure water system
RG0U020T0	Genie U 24 Ultrapure water system, with TOC
RG0U03000	Genie U 32 Ultrapure water system
RG0U030T0	Genie U 32 Ultrapure water system, with TOC

Table of Contents

1 INTRODUCTION

The system is designed to produce ultrapure water (Type I) and RO water directly from tap water. Water quality produced meets or exceeds the corresponding ASTM, CAP, CLSI and ISO 3696 / BS 3997 water standards.

This manual describes in detail about system performance characteristics, installation, operation, and routine maintenance. Please read this manual thoroughly for its instructions on installation, use and maintenance. Proper installation, use and maintenance guarantee the continuous flow of high quality ultrapure water.

Please contact us or your local distributor if you encounter any issues during installation and use. Professional engineers are fully trained to support you.

Safety Information

WARNING!

1) Always power down the system before plug or unplug any hardware. Never hot swap (hot plug) any hardware, including dispenser, monitor as it may damage control boards.
2) Disconnect the unit from the power supply prior to perform service work.
3) Refer service to qualified personnel.

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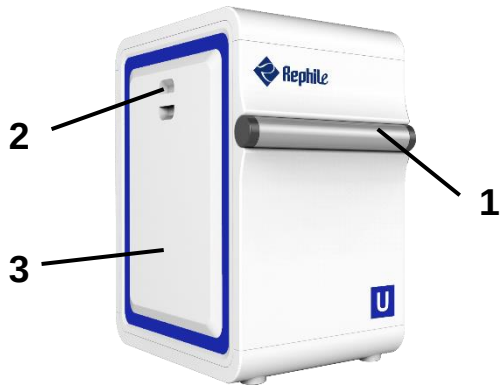
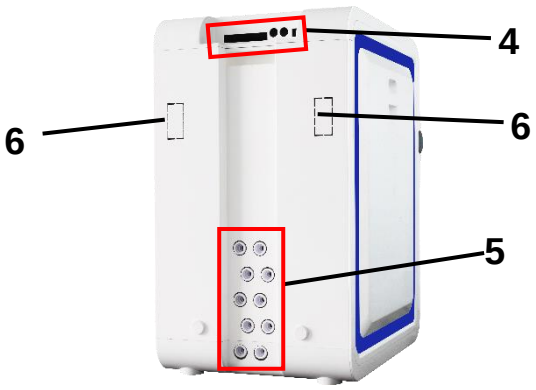
1.1 System Exterior

Main System





Dispenser

Control Console

1	Crossbar and dispenser rest (with optional accessories)	**2**	Side panel handle
3	Side panel	**4**	Electrical connections
5	Water outlets	**6**	Wall mount ports
7	Touchscreen	**8**	Final filter
9	Crossbar	**10**	Crossbar release button
11	Center post	**12**	Dispenser base
13	Finger rest hook	**14**	Corrugated tubing
15	Cable and water outlets	**16**	Outlets for cable or power adapter
17	USB Port	**18**	SD card slot

Description of the system

The Genie U manages the production and distribution of ultrapure water and RO water from tap water. It consists of three main units:

- Main System: manages the production of ultrapure water and RO water.
- Dispenser: integrates the touchscreen and manages the dispensing.
- Control Console: controls and monitors the water system and other components on the 8-inch touchscreen.

1.2 Product Features

The Genie U ultrapure water system provides an integrated solution for lab water supply. This system is easy to install, easy to operate and easy to maintain.

This system has the following features:

- Type I ultrapure water and RO pure water are produced directly from tap water.
- The system can be link to multiple dispensers via cable or wireless.
- Internal P Pack cartridge removes oxidants, organics, particles and scaling ions to prevent them from fouling the RO membranes.
- The RO drain water is reused to increase the water yield. It is more environmentally friendly.
- Internal RO membrane removes over 99% of large molecules and particles and 95% of ions in water.
- Ultra purification cartridge is filled with LeFil™ and OrganeFil™ media to remove trace ions and organics.
- Built-in 185/254 nm dual wavelength lamp reduces TOC level in ultrapure water.
- On-line TOC monitor is based on complete oxidation method to obtain more accurate measurement of the TOC.
- Various final filters (optional) can ensure ultrapure water without particles, bacteria or pyrogen.
- Tank recirculation mode (optional) from a touch on the monitor guarantees high water quality in storage.
- RFID tags ensure perfect placement of consumables and trace their performance.
- The control console is an 8 inch touchscreen. The console controls system and peripheral devices (Such as dispensers and tank sanitization module). All operations can be done on the console.
- Water quality, operation parameters, the status of the system, dispensers, components, and peripheral devices are stored and displayed on the large color touchscreen monitor.
- The console screen and dispenser screens are water-proof. You may operate the console and dispenser with wet latex gloves on.
- Signature verification is required for maintenance and service.
- RephiLe provides full documents support to meet user’s GMP, GSP, GAP, GCP, GLP requirements.

1.3 Main Applications

Pure water and ultrapure water can be used in many areas. Here are some typical applications.

Ultrapure Water	**RO Water**
Important and critical applications	**Routine and non-critical applications**
• HPLC (High Performance Liquid Chromatography) mobile phase preparation • Preparation of reagent blank solution • As sample diluents for GC, HPLC, AA, ICP-MS and other analytical techniques • Preparation of buffer and culture media for mammalian cell culture • Nano-material science • Preparation of molecular biology reagents, etc.	• Glassware cleaning • Washing machine for glassware • Water bath water • Autoclave • Feed water for laboratory animals • Other routine use

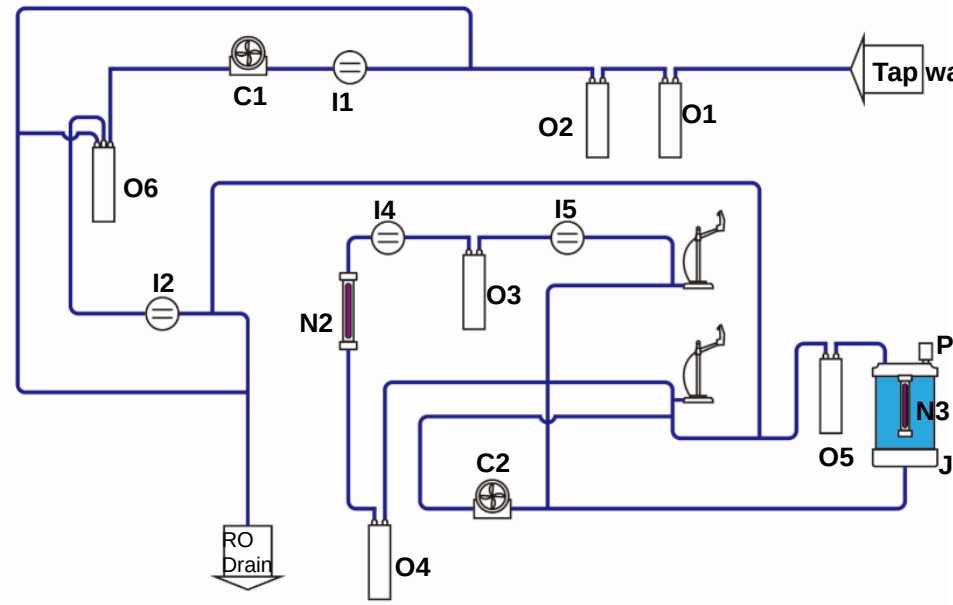
1.4 Specifications

RO Water	
Water Production Rate	12/24/32 L/h at 25 °C
Dispensing Rate	Variable speed dispensing up to 2 L/min
Conductivity	Typically < 20 µS/cm (at 25 °C)
Rejection Rate	> 95%
Ultrapure Water (Type I)	
Dispensing Rate	Variable speed dispensing up to 2 L/min
Resistivity	18.2 MΩ.cm (at 25 °C)
TOC	< 5 ppb
Particles (>0.2 µm)	No particles (with a 0.2 µm final filter or RephiBio filter)
Microorganism	< 0.01 cfu/mL (with a 0.2 µm final filter or RephiBio filter)
Pyrogen Content	< 0.001 EU/mL (with RephiBio filter)
RNases	< 0.5 pg/mL (with RephiBio filter)
DNases	< 10 pg/mL (with RephiBio filter)
Electrical Connections and Specifications	
Operating Voltage	24 VDC
Input Voltage	100 – 240 VAC
Main System Power	< 200 W
Dimensions and Weights	
Main System Width × depth x height	32 × 44 × 54 cm (12.6 × 17.3 × 21.3 in)
System Weight	20 kg
Control Console Length x width	22 × 17 cm (8.7 × 6.7 in)
Control Console Weight	0.75 kg
Dispenser Width × depth x height	21× 29 × 61 cm (8.3 × 11.4 × 24.0 in)
Dispenser Weight	5 kg

1.5 Operation Principles

Genie U water system produces ultrapure water and pure water directly from tap water. Most particles, ions and organic compounds are removed through the pre-filtration, RO membrane, then the RO water goes to the storage tank. When in need of ultrapure (UP) water, RO water goes through a UV lamp chamber with a dual wavelength UV lamp to destroy trace organic pollutants in water, then through a polishing cartridge to remove the last trace of ions, then a 0.2 μm final filter to the outlet.

Genie U Water Flow Diagram



No.	Description	No.	Description
C1	RO Booster Pump	C2	UP Recirculating Pump
I1	Feed Conductivity Sensor	I2	RO Conductivity Sensor
I4	TOC Sensor	I5	UP Resistivity Sensor
J	Pure Water Tank	N2	Dual-wavelength UV Lamp
N3	Tank UV Lamp	O1	AC Pack
O2	P Pack	O3	U Pack
O4	H Pack	O5	T Pack (Optional)
O6	RO Pack(s)	P	Tank Vent Filter

1.6 Technical Specifications

Measurement Range	Channel A (Feed Water): 1 – 1999 µS/cm Channel B (RO): 1 – 199 µS/cm Channel C (UP): 1 – 18.2 MΩ·cm Channel D (HP): 1 – 18.2 MΩ·cm
Pressure Range	0 – 1.6 MPa
Flow Meter Range	1 – 30 L/min
Temperature Range	0 – 100 °C
Tank Level	0 – 2 m Continuous display, or 0 – 3 m submersible sensor
Temperature Compensation Range	Automatic temperature compensation of readings Temperature compensation range: 5 – 45 °C to 25 °C

2 INSTALLATION

2.1 Installation Site Requirements

Item	Requirements
Installation space	≥ 90 cm×50 cm total
Feed water	Municipal water, outlet diameter > DN 20, ball valve, NPT thread
Drain water tubing	> DN 50
Working Temperature	5 – 45 °C
Power	100 – 240 VAC ± 10%, 1 KW (5 A)
Humidity	20 – 80%

2.2 Feed Water Requirements

Parameter	Value or Range
Pressure	15 – 90 psi (1.0 - 6.0 bar) If the pressure is above 6.0 bar, needs to install an external pressure regulator.
Conductivity at 25 °C	< 2000 µS/cm
pH	4 – 10
Water temperature	5 – 45 °C
Total dissolved solids (TDS)	< 1000 ppm
Total Organic Carbon (TOC)	< 2000 ppb
Hardness (as $CaCO_3$)	< 120 mg/L (< 120 ppm): use RR700CP01 120 – 180 ppm: use RR700CP02 > 180 ppm: softener recommended
Free or total chlorine	< 1.5 ppm

2.3 Feed Water Quality Measurements

Parameter	Test Method
Pressure	Use a pressure gauge
Conductivity at 25 °C	Use a conductivity meter
pH	Use a pH test strip
Hardness and chlorine	Use a reputable brand test strip
Total dissolved solids (TDS)	Use a TDS meter
Total Organic Carbon (TOC)	Use a TOC analyzer

2.4 Installation

2.4.1 Items Included

Package			
No.	**Name**	**Quantity**	**Note**
1	Genie U Main System	1	
2	Control Console	1	Including a cable connected to main system
3	Accessories Bag	1	Including 8 mm PE tubing (8 meter), one roll of Teflon tape, one roll of PVC tubing, a male connector, a tweezers and a power adapter (with power cord)
4	User Manual	1	On USB
5	Quick Operating Guide		
6	Quality Certificate	1	

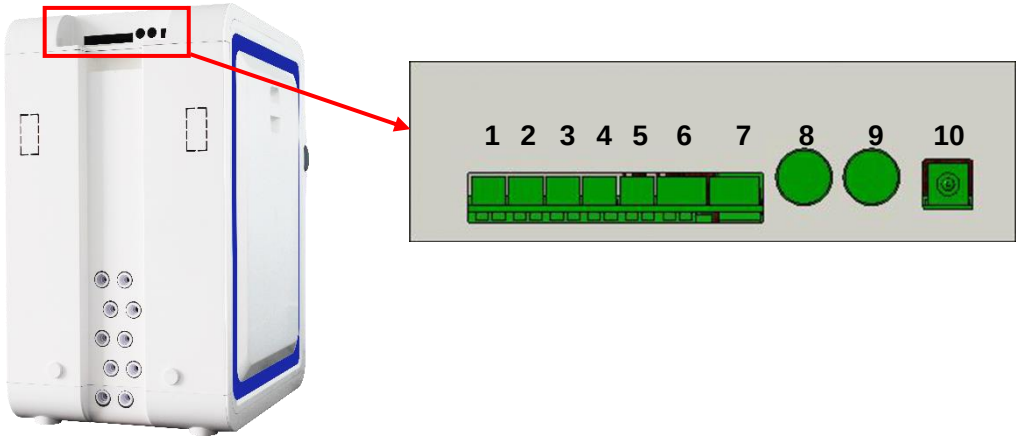
2.4.2 System Structure and Flow Diagrams

2.4.2.1 Main System Back Side View

Illustration of water inlets and outlets

No.	Label	Description	Tubing Diameter	Connect to
A	HP Dispenser A	For pure water	8 mm	Dispenser
B	HP Dispenser B	For pure water	8 mm	Dispenser
C	EDI Drain	Spare	8 mm	
D	Pure Water In	From the tank	8 mm	Pure water tank
E	Product To Tank	RO product outlet	8 mm	Pure water tank
F	UP Dispenser A	For ultrapure water	8 mm	Dispenser
G	UP Dispenser B	For ultrapure water	8 mm	Dispenser

H	RO Drain	RO drain outlet	8 mm	Drain
I	Tap Water In	Tap water inlet	8 mm	Tap water
J	Spare	Spare	8 mm	

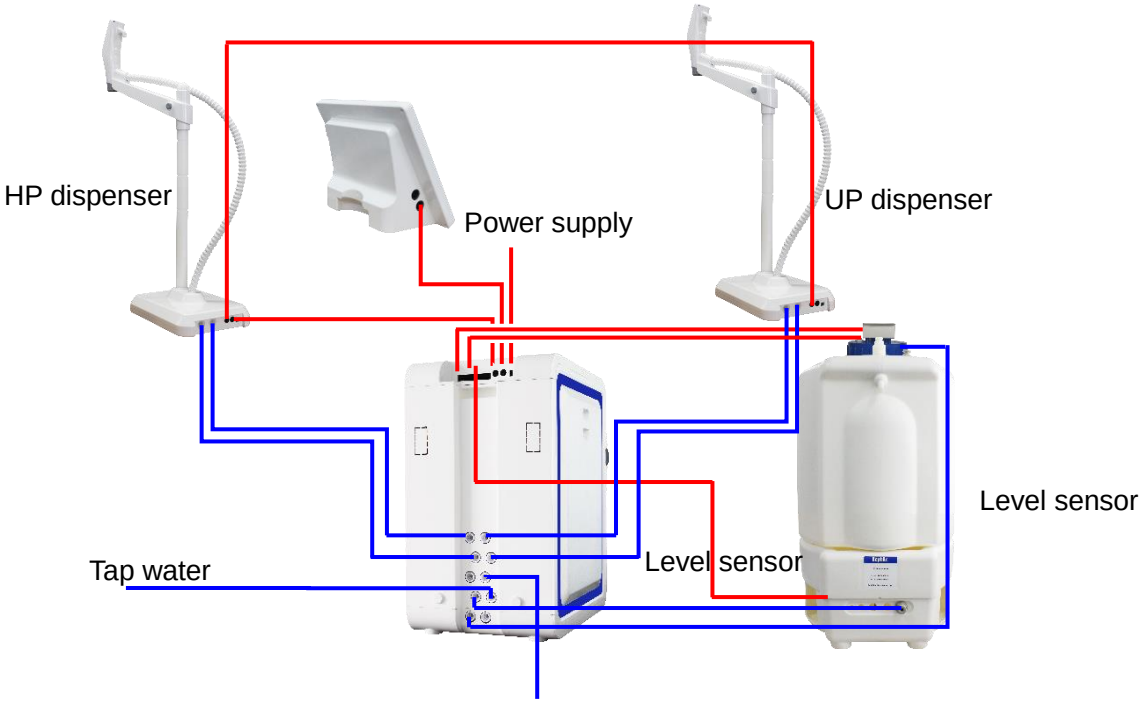


Description of electrical control board

No.	Label	Description	Connect to
1	Leak Sensor	For leak protector control line	For future use
2	Prefilter Sensor	For backwash signal control line	Not in use
3	Feed Valve	For the feed solenoid valve control line	Not in use
4	Feed Pump	For the booster pump control line	Not in use
5	Tank UV	For the sanitization module control line	Automatic sanitization module
6	Level Sensor	For the pure water tank level sensor control line	Pure water tank level sensor
7	Overflow Sensor	For overflow sensor control line	Overflow sensor
8	CAN A	Data cable port	Dispenser or control console
9	CAN B	Data cable port	Dispenser or control console
10	Power	Power cord port	Power adapter

2.4.2.2 Genie U External Connection Diagram

Note: Dispensers signal cable can be connected to the main system or the control console. Illustrated below is the connection to the main system.



Red Line: Electrical loop

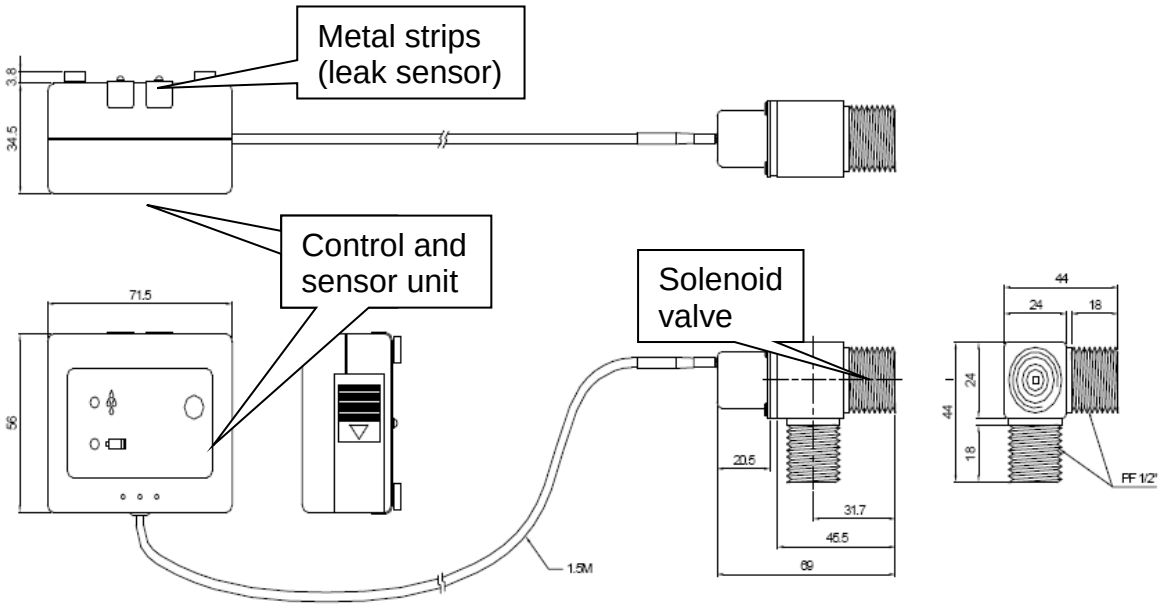
Blue Line: Water loop

2.4.3 Installing the Leak Protector

2.4.3.1 Leak Protector Specifications

Catalog No.	RAPRC0117
Operating voltage	9 V DC
Working current	Typical 1.0 mA, maximum 15.0 mA
Cable length	1.5 M to solenoid valve
Fitting	8 mm inch quick connectors on 1/2 ″ male BSP
Method of water leak detection	Conductivity. Put the sensor near the water system
Operating temperature	-20 – 80 °C
Maximum inlet pressure	6 bar (90 psi)

2.4.3.2 Illustration of Installation



2.4.3.3 Installation

Preferred Method

Follow the steps below if the diameter of the faucet is 1/2 inch female thread.

a) Screw off the stopper on the inlet of the Protector's solenoid valve. Screw on the stainless steel female connector to the faucet as shown above.
b) Cut an appropriate length of 8 mm PE tubing. Insert one end of the tubing into the inlet of the main system and the other end into the outlet of the Protector's solenoid valve.
c) Place the sensor metal strips side down on the floor or near the water system.
d) Sprinkle some salt around the sensor unit. It's recommended to use salt as pure water has a very poor conductivity.

Alternative Method

a) Install the Leak Protector in-between the water source and the main system: Cut the 8 mm tubing connecting the water source and the main system. Screw on the connector to the stainless steel connector of the inlet (Users need to buy it). Insert the cut tubing from the water source side to the inlet of the Protector's solenoid valve, and insert the other tubing to the outlet of the solenoid valve.
b) Place the sensor metal strips side down on the floor or near the water system.
c) Sprinkle some salt around the sensor unit. It's recommended to use salt as pure water has a very poor conductivity.

Operations

a) Reset to work: Press the power button on the control unit for 4 seconds to activate the control unit and to open the solenoid valve. You will hear a long beep. The unit is set to work now.
b) Auto shut off when a water leak is detected: When the sensor detects a water leakage, the control unit shuts the solenoid valve off to stop feed water. Short "beep-beep" alarm will sound and the blue indicator light on the control unit blinks continuously.
c) After the leakage is stopped, reactivate the Leak Protector by pressing the power button for 4 seconds. A long beep indicates that the system is set to go.

d) Low power shut off: When the battery is low, the control unit shuts off the solenoid valve. The red light blinks with short “beep” alarms. After installing a new battery, reactivate the Protector by pressing the power button 4 seconds till a long beep sounds.

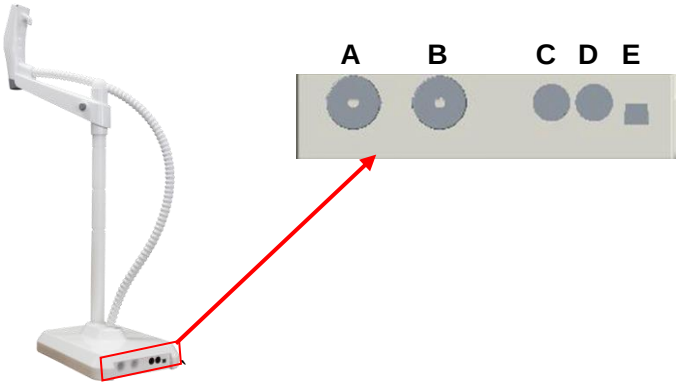
Battery life

A 9 V alkaline battery typically can last for 3 years. It is recommended to replace the 9 VDC batteries **Every Year** when the environment is damp.

a) Place the sensor metal side down on the floor or near the water system.
b) Plug the signal cable to the Leak Sensor port on the system.
c) Sprinkle some salt underneath the sensor. It will enhance the sensitivity of the sensor should a leak occurs.

The feed solenoid valve shuts off when a water leak is detected. An alarm of “Low Feed Water Pressure” displays on the control console. Press the power button 4 seconds to reactivate the leak protector after the leakage is stopped. Switch the system to Standby mode first, then to Ready mode. The alarm will disappear when flush is finished.

2.4.4 Installing the Dispenser



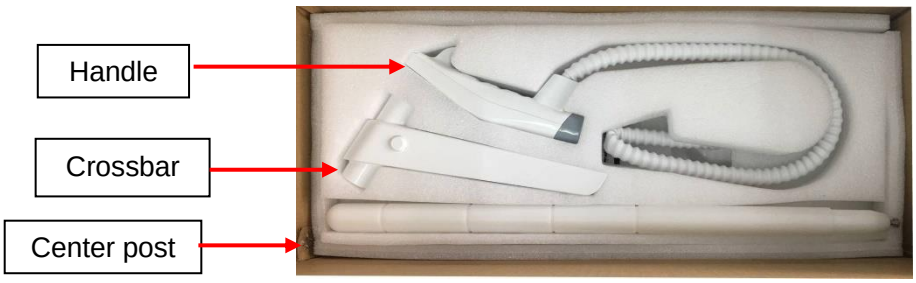
No.	Description	Connect to
A	8 mm tubing port	Main system
B	8 mm tubing port	Main system
C	Data cable port	Main system or power
D	Data cable port	Main system or power
E	Foot switch port	Foot switch (Optional)

2.4.4.1 Items included

Package			
No.	**Name**	**Quantity**	**Note**
1	Dispenser base	1	The handle is connected to the base with corrugated pipe.
2	Center post	1	With Screw
3	Crossbar	1	
4	Accessories bag	1	Including one roll of Teflon tape, one roll of PVC tubing, a male barb connector and a screwdriver.

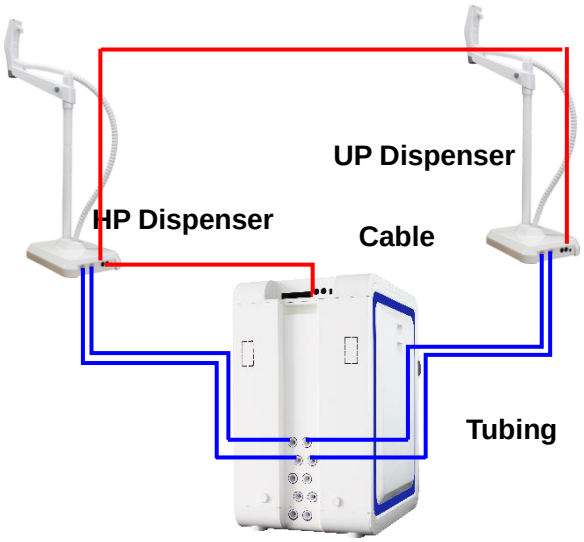
2.4.4.2 Installing the Dispenser Kit (RG0P0U001)

a) Open the package and take out the dispenser from the package. Set the dispenser base on a stable surface. This kit comes with a 3-meter link bundle.

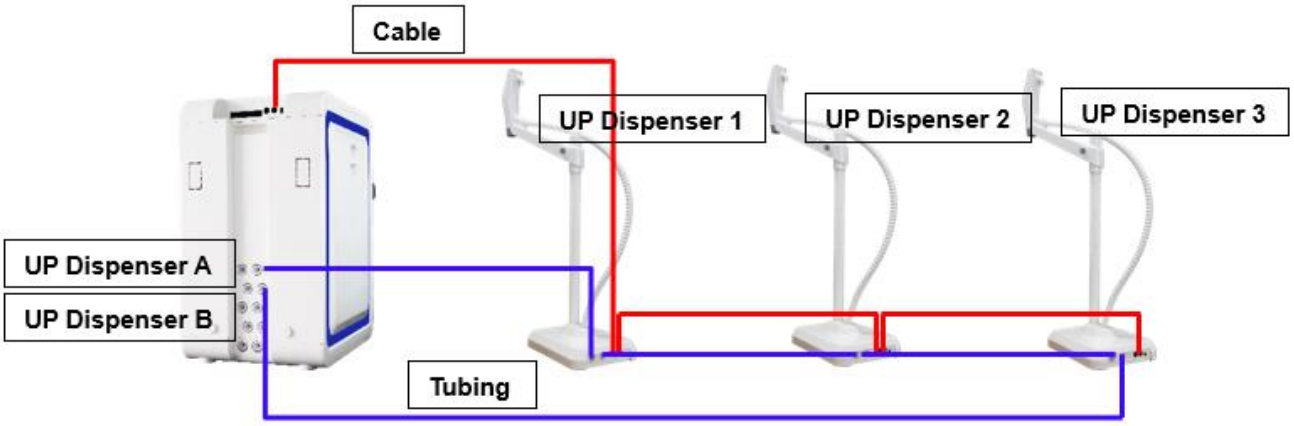


b) Install the dispenser center post to the base, then insert the crossbar on the center post, place the dispenser handle on the magnetic base of the dispenser arm.

c) Take the tubing bundle out from the package, including two pieces of tubing and a cable. Install the tubing and cable as shown in the pictures below.



Connection of one dispenser for UP water and another dispenser for HP water.



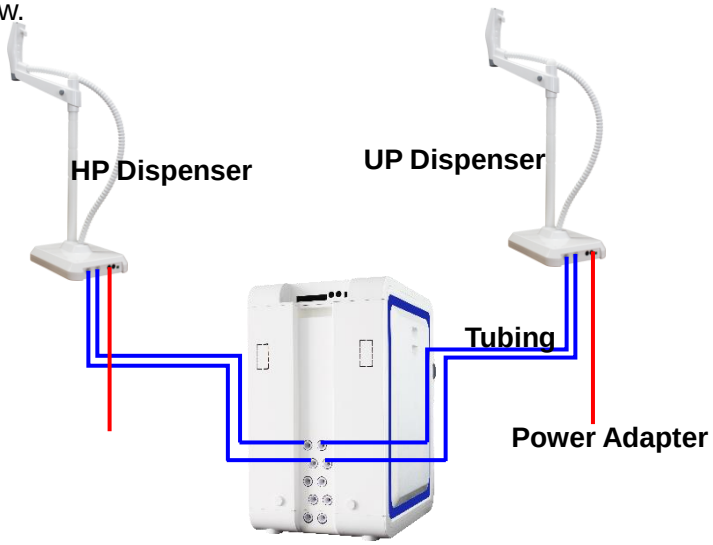
Connection of multiple dispensers for UP water or HP water.

2.4.4.3 Installing the Wireless Dispenser Upgrade Kit

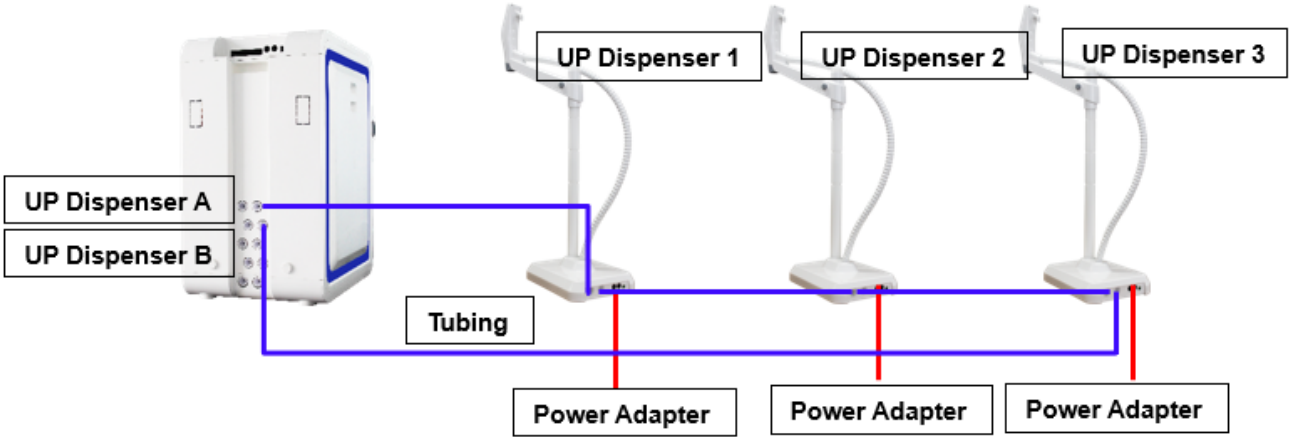
a) For dispenser connected using wireless, need to use the upgrade kit (**RG0P0U012**) to install the dispenser. The kit comes with a 10 meter link bundle and a power adapter

b) Assemble the dispenser as that described above.

d) Connect the tubing and the power adapter as shown in the pictures below. Take the tubing out from the package, cut two pieces in proper length and insert them to the system and dispenser base as shown below.



Connection of one dispenser for UP water and another dispenser for HP water.



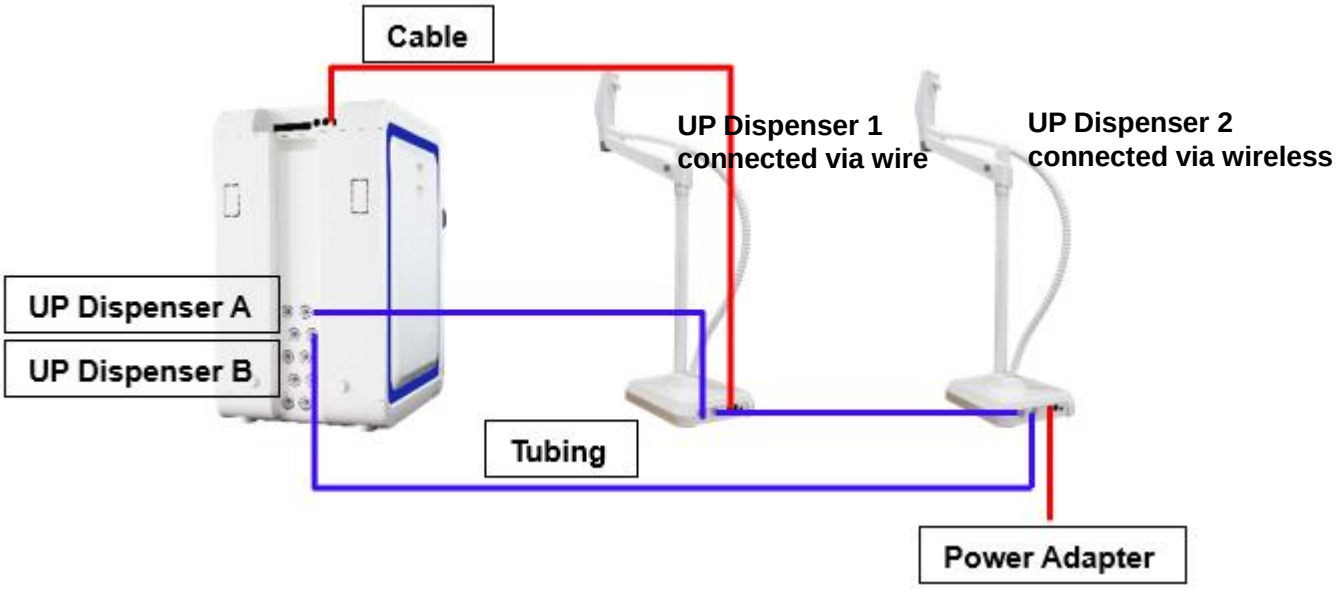
Connection of multiple dispensers for UP water or HP water.

2.4.4.4 Installing the Dispenser Kit (RG0P0U001) and the Wireless Dispenser Upgrade Kit

a) For one dispenser connected via wire and another one dispenser connected using wireless, need to use the upgrade kit (**RG0P0U012**) to install the dispenser. The kit comes with a 10 meter link bundle and a power adapter

b) Assemble the dispenser as that described above.

c) Connect the tubing and power adapter as shown in the pictures below. Take the tubing out from the package, cut three pieces in proper length and insert them to the system and dispenser base as shown below.



2.4.5 Installing the Pure Water Tank

Illustration of the PE Water Tank Assembly

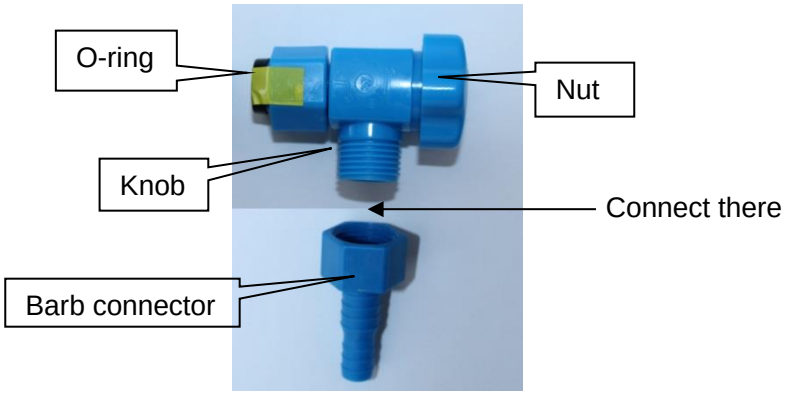
2.4.5.1 Items Included

Package		
Item.	Description	No.
1	Tank	1
2	Faucet accessories bag	1
3	8 mm elbow plug	2
4	Tank sanitization module	1
5	Quick installation guide	1

2.4.5.2 Installation

a) Remove the end caps on all ports

b) Install the faucet:



Step 1 Remove the knob and the barb connector from the package. Twist on the barb connector to the knob, then remove the yellow tape from the O-ring.

Step 2 Screw on the assembled faucet to the tank until its finger tight.

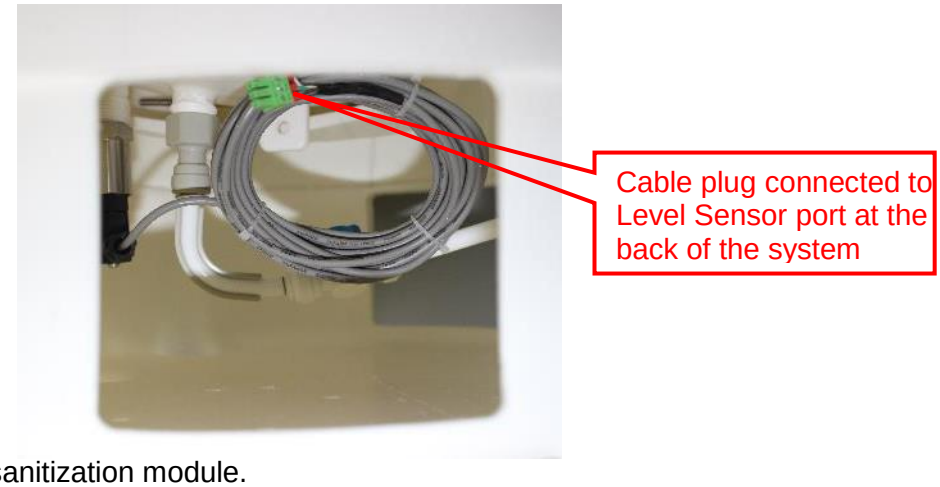
c) Insert the two 8 mm elbow plugs provided into the tank water inlet and outlet respectively. Take the 8 mm tubing out from the system accessories bag, cut two pieces in proper length of tubing to link the tank to the system.

d) Insert one end of the first 8 mm tubing into the **INLET** port at the top of the PE tank and the other end into the **Product To Tank** on the system.

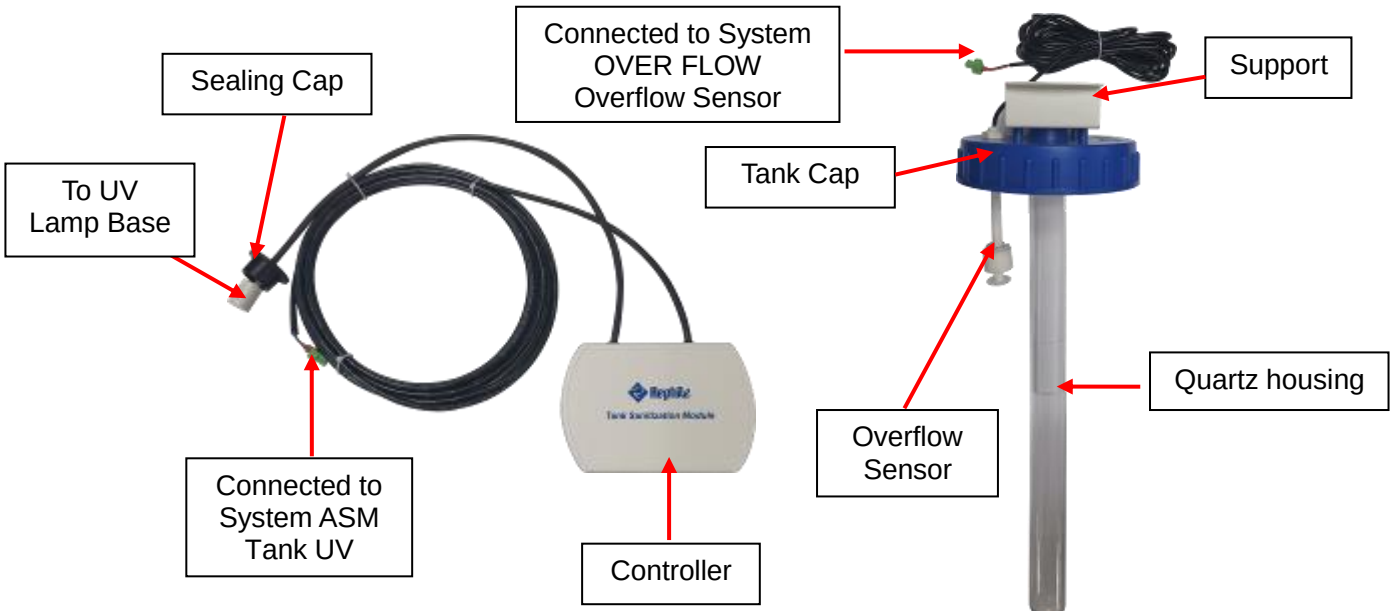
e) Insert one end of the second 8 mm tubing into the **OUTLET** at the base of the PE tank and the other end into the **Pure Water In** on the system.

f) Screw the Tank Vent Filter to the top of the PE tank (see picture Tank Top View).

g) Connect the cable plug from the tank level sensor to the **Level Sensor** port on the back of the water system

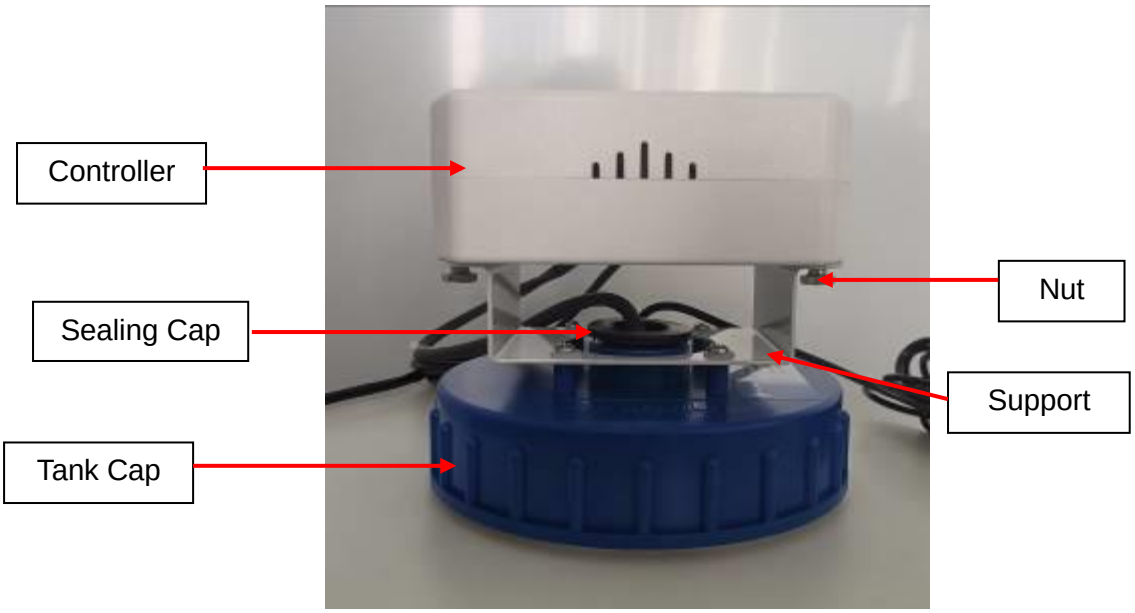


h) Install the tank sanitization module.



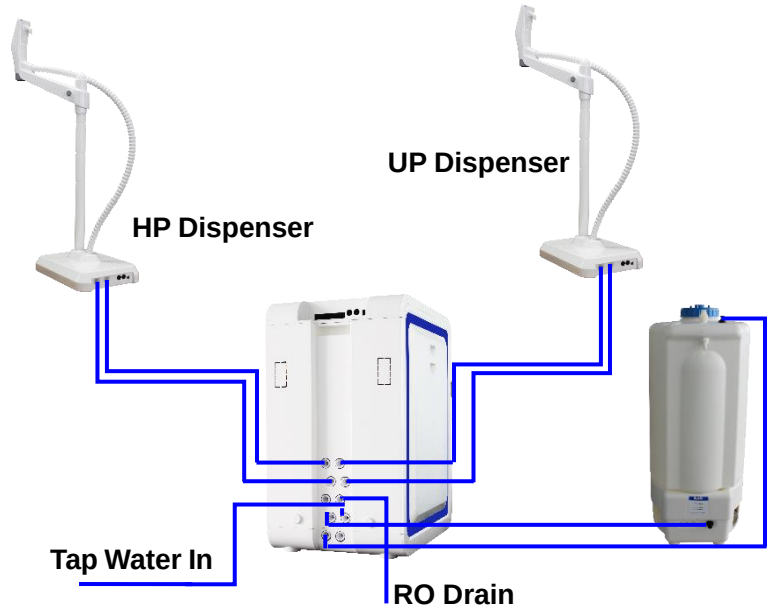
Tank Sanitization Module Ballast and Cables

Step 1 Open the box, and take out the three parts of tank sanitization module: sanitization module controller, UV lamp, module body (including a cover, a quartz chamber and a bracket).
Step 2 Screw the tank cap to the tank top, and then screw off the hexagonal nut on the module body.
Step 3 Push the signal cable with the UV lamp base and the sealing cap through the hole in the middle of the controller. Then carefully insert the UV lamp completely into the chamber. Hold the UV lamp and connect it to the UV lamp base. Screw the sealing cap to the UV lamp mounting hole.
Step 4 Remove the nuts on the back of the controller. Then fix the controller to the support with the nuts.



Step 5 Connect the signal cables to ASM port and OVER FLOW port on the system respectively.

2.4.6 Installing the Water Tubing



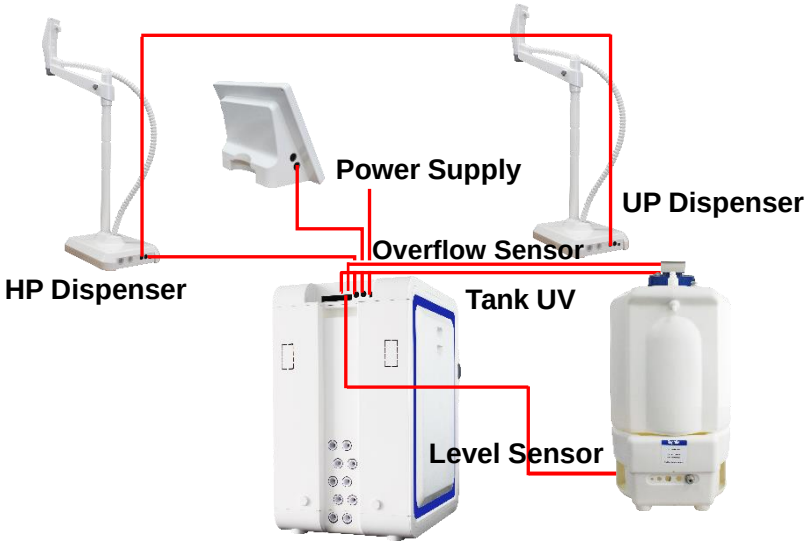
2.4.6.1 Connecting the Feed and Drain Tubing

a) Remove the stopper on the tap water inlet on the system. Take the 8 mm PE tubing from the accessories bag and cut two pieces of the tubing with proper length.

b) Insert one end of the first 8 mm PE tubing into the water inlet on the system (Mark as **Tap Water In**). Connect the other end to the tap water. Gently pull the tubing outwards to check if the connection is secure.

c) Insert one end of the second 8 mm PE tubing into the **RO Drain** on the system. Connect the other end to the drain.

2.4.7 Installing External Cable Connection



Make sure all power cords and signal cables are connected to their corresponding ports.

Connect the power adapter after all other signal cables are connected. Power up the system.

3 SYSTEM STARTUP AND OPERATION

3.1 Check List Prior to System Startup

Prior to system start up, use the table below to make sure all parts have been installed and connected, and quality of feed water meets minimal requirements.

Check List	
Feed water quality Municipal water: TDS < 1000 ppm, Conductivity < 2000 µS/cm (at 25 °C), Water temperature: 5 – 45 °C, Pressure: 15 – 90 psi (1 – 6 bar)	
Feed water connected	
Leak protector installed	
Pure water tank installed	
Dispenser installed and connected	
Drain tubing connect	
Control console connected	
Power adapter plugged in	

Note: RO membranes and cartridges will be installed after system power-up. DO NOT install them now.

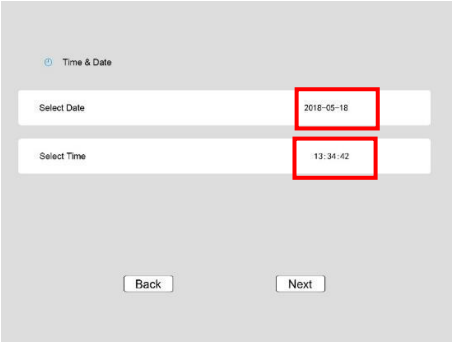
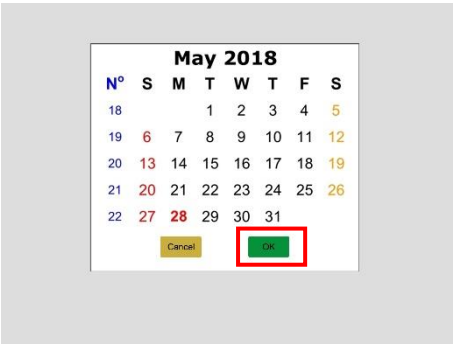
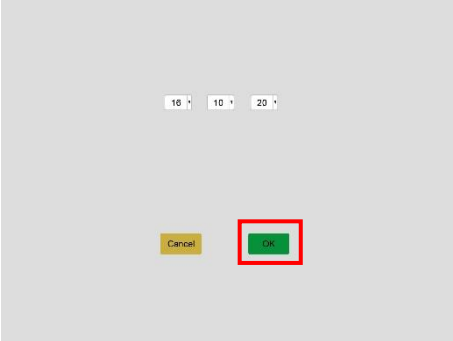
3.2 System Initial Startup

Connect the power adapter to the system to power on the system. A setup menu will show up at the initial power-up in a few seconds.

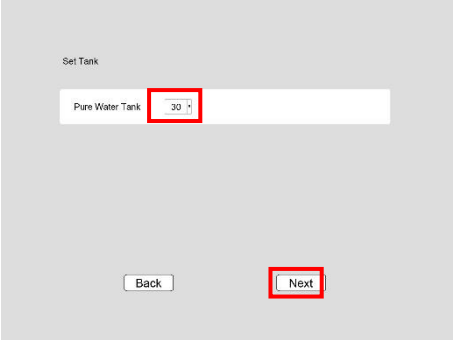
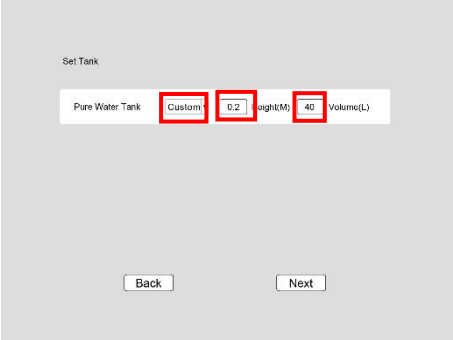
3.2.1 Language Setup

	The language setup menu will show up in the first page. Default is English. You may choose the language desired and then tap **Next** to set up **Time & Date**.

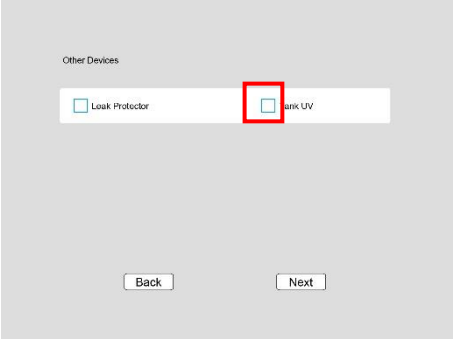
3.2.2 Time & Date Setup

	Tap **red box** to enter setup menu.
	Select locate date and then tap **OK** to confirm setting.
	Select locate time and then tap **OK** to confirm setting. Tap “**Next**” to enter **Tank** setup menu.

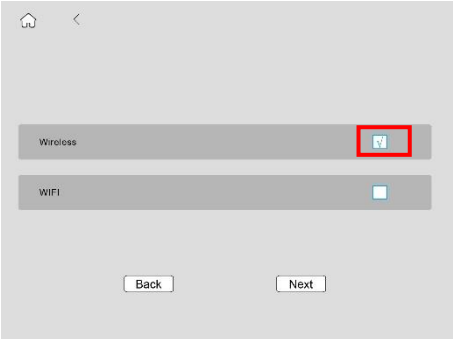
3.2.3 Tank Setup

	Choose the actual capacity of pure water tank. Tap **Next** to enter **Other Devices** setup menu.
	If the tank is not from RephiLe, choose **Custom**. Setup the height and volume of the pure water tank.

3.2.4 Other Devices Setup

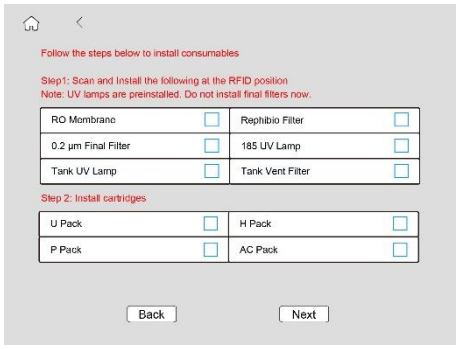
	Make sure there is “√” in the red box of **Tank UV** if the tank sanitization module is equipped.

3.2.5 Connectivity Setup

	Select Wireless if wireless dispenser is opted. Check “√” one in the red box. Tap “**Next**” to enter Install consumables interface.

3.2.6 Install Consumables

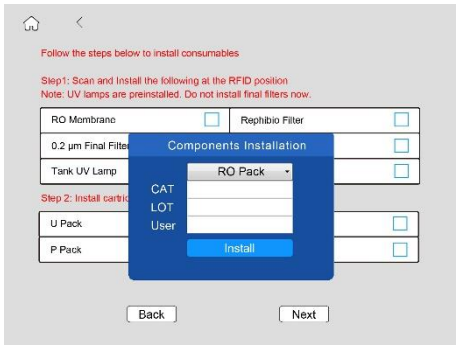
3.2.6.1 Register Consumables (Not including cartridges)

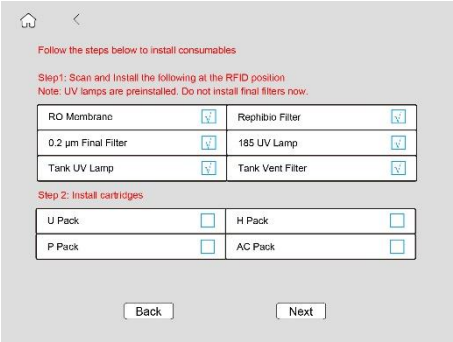
<table>
<tr>
<td> 


</td>
<td>Follow instructions on the screen, scan RFID tags for the RO Pack, T Pack (optional), 185 nm UV lamp, tank UV lamp, tank vent filter and final filter at the AC pack position with an antenna sign (

) on the system. Details are shown below

Note:
1. RFID tags are either inside consumable packages, or for preinstalled UV lamps etc, inside USB key package.
2. For traceability, your User Name is required to install/register consumables. For a new installation, enter system manager’s User Name.</td>
</tr>
<tr>
<td> 
</td>
<td>Remove the right side panel to find the RFID reader position (

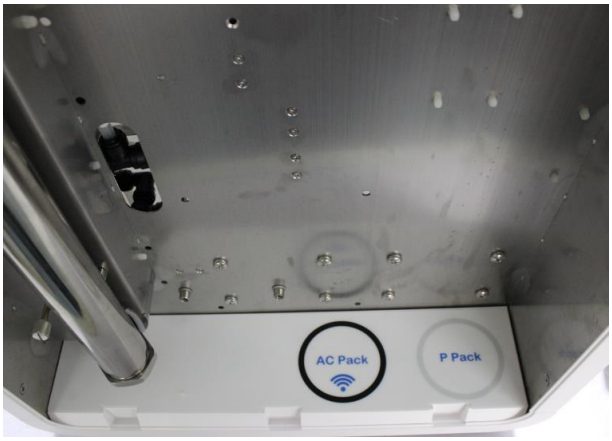
) as shown left.</td>
</tr>
<tr>
<td> 
</td>
<td>A pop-updialog will be shown as left after every scan, enter manager’s User Name and tap Install to register the consumables</td>
</tr>
</table>

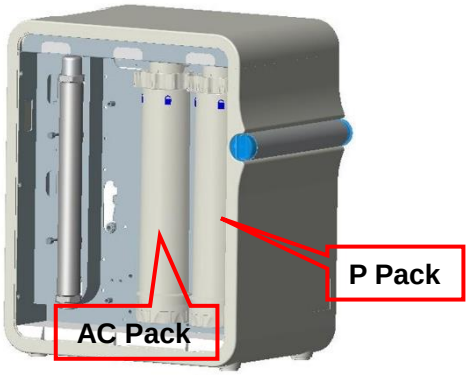
	Follow steps below to install cartridges after finishing the registering.

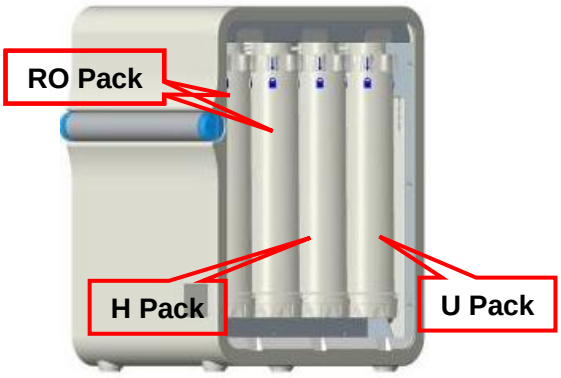
3.2.6.2 Install and Register Cartridges

Tank recirculation is optional. If the tank recirculation function is added, then install the T Pack as described below. Otherwise, leave it open.

Genie U system has a total of up to 7 packs, 1 or 2 RO packs, 1 AC Pack, 1 T Pack (Optional), 1 P Pack, 1 H Pack, 1 U Pack. Each cartridge's position is labelled on the system. Install a cartridge to its corresponding position.







U Pack is used to illustrate cartridge installation below.

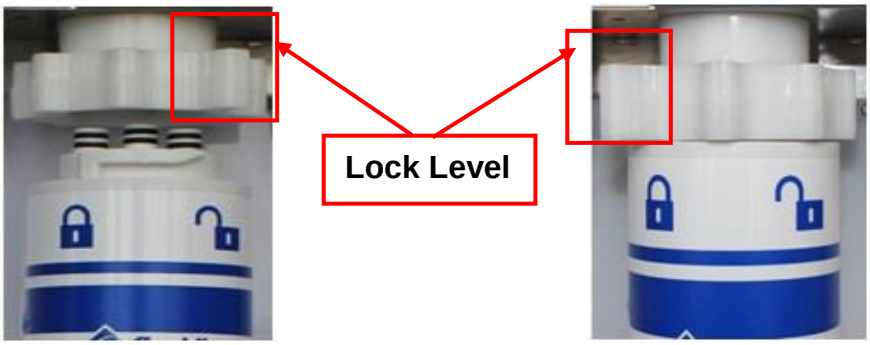
a) Remove the right side panel from the system as shown below.

b) Take out the cartridges from their packaging, respectively. Remove caps on the cartridge's inlet and outlet on the system.

c) Follow the instruction below to install the U pack to its corresponding position.

d) Wet the O-rings on the U Pack cartridge with pure water.

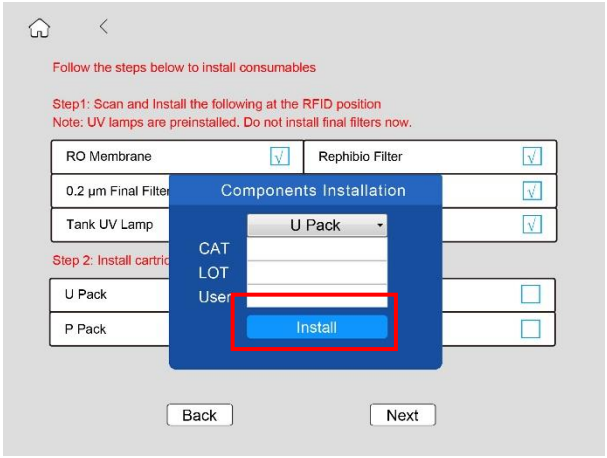
e) Turn the lever on the cartridge adapter to the right side at the unlock position as shown in the photo.



Unlocked position **Locked position**

f) Align the cartridge label facing out. Insert the cartridge's up end first into the opening on the cartridge adapter, then turn the lever handle to the left to lock the cartridge.

g) A pop-up dialog will be shown as below, tap **Install** to complete the installation.

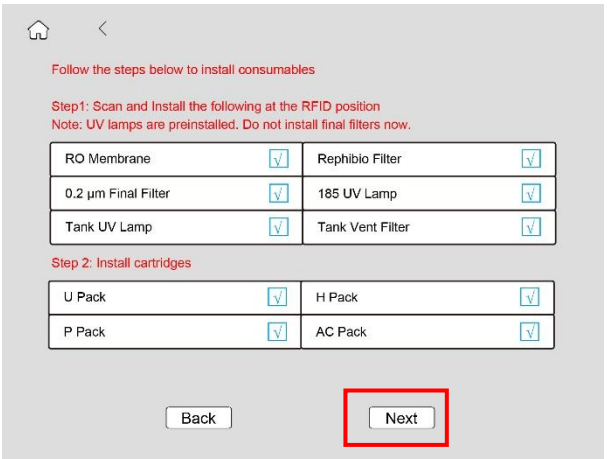


Follow the same procedure to install other cartridges. Install the AC Pack, the P pack and the T Pack (Optional) cartridge to the left side of the system, the RO Pack(s) and the H Pack to the right side.

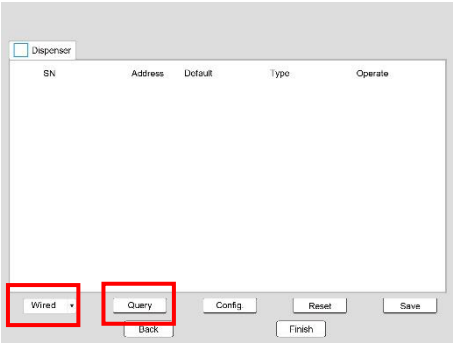
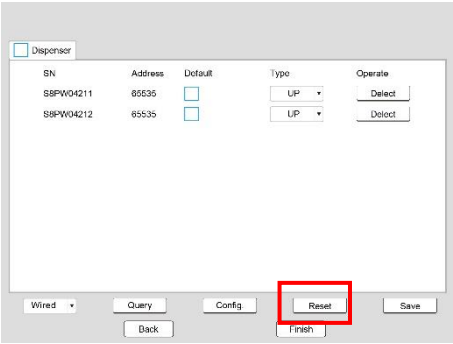
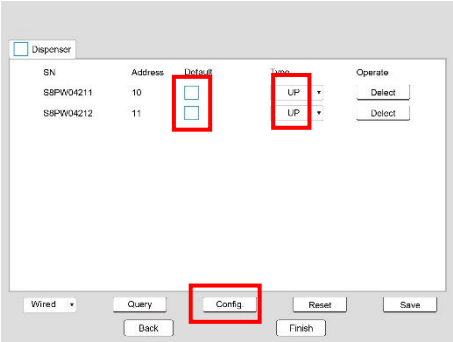
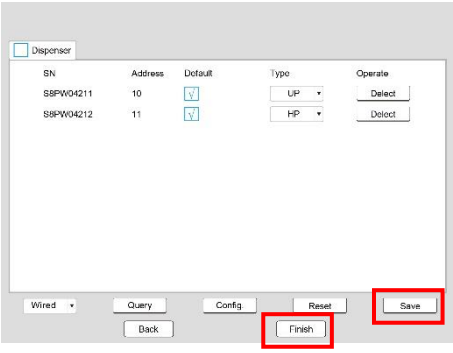
Note!

The control console will display “RFID Error!”, and the alarm icon if a pack is installed incorrectly. Reinstall it to the correct position.

h) Make sure all consumables have been registered and tap **Next** to enter Dispenser setup menu.



3.2.7 Dispenser Setup

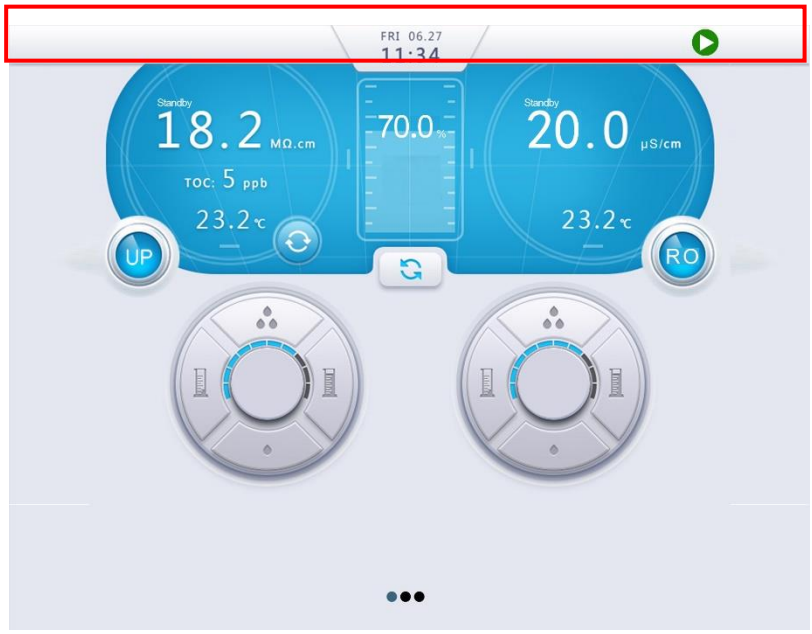
	Select connection mode for the dispenser from the pull-down menu at the left corner: Select **Wireless** for the wireless connection. Select **Wired** for the wired connection. Tap **Query**, the system will automatically search for the dispensers that have been installed. **Note:** The dispensers may have prior registered to other systems, causing problems in installation if record in the dispenser is not cleared. Press Query will clear such record.
	Tap **Reset**, system will automatically reset the address.
	Tap **Config.**, system will automatically configure the dispensers. Need to choose a dispenser as default for each type of water. Water will come out from the default dispenser when you tap dispense button on the control console. Choose the Type of the dispenser. **Note**: An Address shown between 10 and 20 means the dispenser setup is successful.
	Tap **Save** to save the configuration. Confirm the configuration by tap **Finish**.

	System will enter the home screen automatically.

Now the system is ready to operate

3.3 System Setup

Swipe a finger down the top section of the home screen to see the drop-down bar. Make sure the system is in Ready mode. If not, toggle between Standby and Ready modes using the drop-down bar to switch the system from Standby to Ready.



Drop-down bar

Note!

Alarms icon and / or alerts icon may present in the middle of the home screen when setting-up the system. It's normal. Just follow this user manual to finish the rest of operations.

3.3.1 Flushing the RO Membrane

Newly installed system or the system with newly installed RO membrane needs to flush RO membrane to clean up preservatives in the RO membrane. System will initiate a 20 - minute flush automatically after the system enters into Ready mode at the system starts up for the first time. System will enter into production mode after flushing.

The system automatically detects the quality of the RO water, discharges it to the drain if it doesn't meet quality parameters, or sends it to pure water tank if it passes quality parameters.

3.3.2 Flushing the PE Tank

Discard water when the tank is full at the first fill to ensure the quality of water in the tank.

Switch the system from Ready mode to Standby mode by click on top of the Home screen. Remove the tubing connected to the **Pure Water In** port on the system to let the tank drain. Then insert the tubing into the **Pure Water In** port on the system.

System will stop produce water automatically when the tank is full and the graph bar on the home screen reaches the top, shows 100%. System will automatically restart production when water level

is below 80%.

Water will stop dispensing automatically if tank water level falls below 10% (tank empty). Press dispense button to stop dispensing until the tank is refilled.

3.3.3 Degassing the System

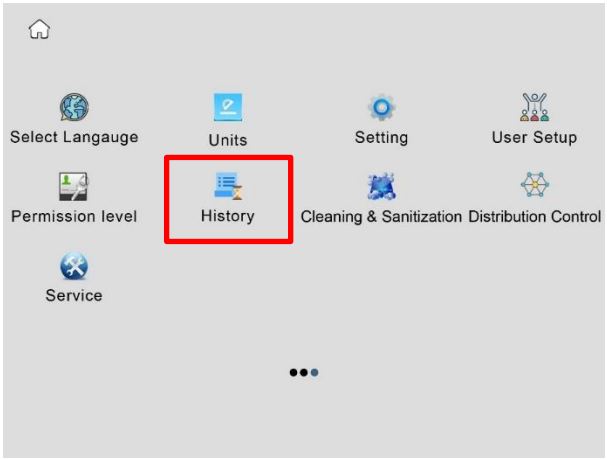
a) Remove the stopper from the UP dispenser outlet.
b) Screw on the barbed adapter (in the accessory bag) to the dispenser outlet. Connect the PVC tubing inside the accessory bag; insert one end to the adapter and put the other end into the drain.
c) Press the dispense button to dispense water. Gas inside the system will be released out of the system.
d) Wait till no more gas bubbles coming out of the tubing. Press the dispense button again to stop degassing. Screw off the adapter.

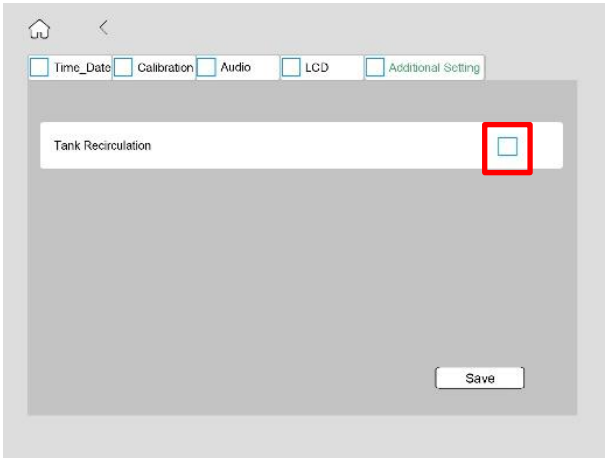
3.3.4 Installing the Final Filter

a) Open the attached final filter package.
b) Screw the final filter onto the remote dispenser until finger-tight (no leak at dispensing). Do not over tighten it as it may damage threads.
c) Press the dispense button to flush out gas in the filter.
d) Press the dispense button again to stop dispensing.

3.4.5 Tank Recirculation Setup

Swipe the screen to page 3 in Standby mode. Page 3 is **Maintenance Menu**. Tap **Setting** to enter setup menu. For system with T Pack, check "√ in the red box before **Tank Recirculation.**



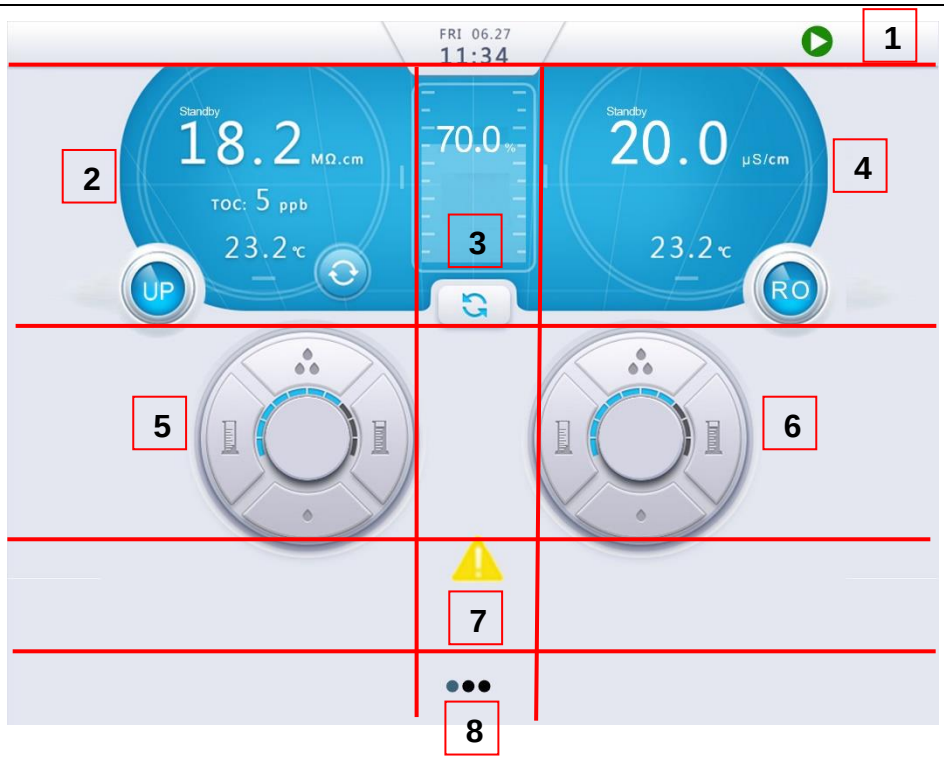


Notes: Maintenance menu is password protected for system engineers. The log-in information is in the USB stick shipped with the system.

This completes the system hardware installation.

3.4 Information Menu

Control Console Main Page



Section 1: Drop-down menu, including the located time and system operating status.

Standby

Ready

Section 2: UP water quality, TOC, temperature, operation mode and UP water recirculation icon.

Section 3: Pure water tank level, water quality and tank water recirculation icon (For system with tank recirculation on, water quality of the tank water will show.).

Section 4: RO water quality, temperature and operation mode.

Section 5: UP water dispensing set up

Volumetric dispensing button, decrease the volume, down to 0.1 L.

Volumetric dispensing button, increase the volume, up to 99.9 L.

Dispense rate down button, decrease the rate.

Dispense rate up button, increase the rate up to 2 L/min.

Bar graph shows the relative dispensing rate.

12.5 L Dispensing button, press the button to dispense water after setting up the volume. If it displays 0.0 L, it's non-volumetric dispensing.

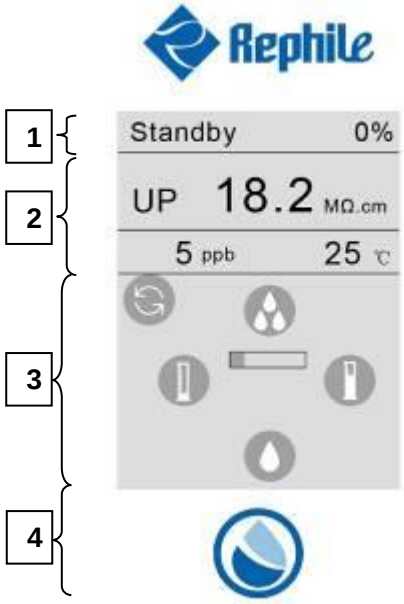
Section 6: RO water dispensing setup

Refer to Section 5

Section 7: Alarms icon and alerts icon present in the middle to display current alarms or/and alerts.

Section 8: ●●● Indicates multiple screens. Swipe left & right anywhere in the blank area on the screen to switch pages

Dispenser



Section 1: System operating status (including Ready, Standby, Pressure Relief, Recirculation and Product) and tank level.

Section 2: Water quality parameters. UP dispenser displays water resistivity, TOC and temperature. RO dispenser displays water conductivity and temperature.

Section 3: Dispensing set up

Recirculation button

Volumetric dispensing button, decrease the volume, down to 0.1 L.

Volumetric dispensing button, increase the volume, up to 99.9 L.

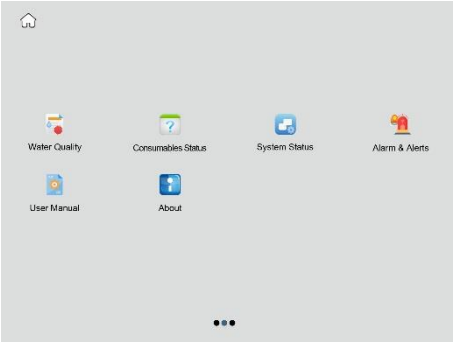
Dispense rate down button, decrease the rate.

Dispense rate up button, increase the rate up to 2 L/min.

Bar graph shows the relative dispensing rate.

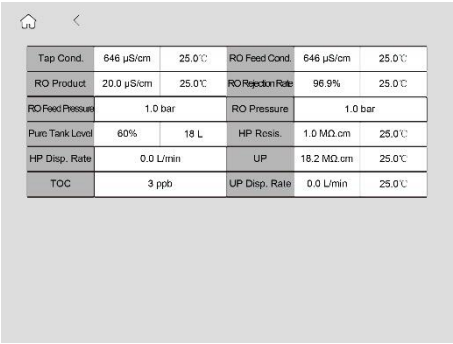
Section 3: Dispensing button

Control Console - More Pages



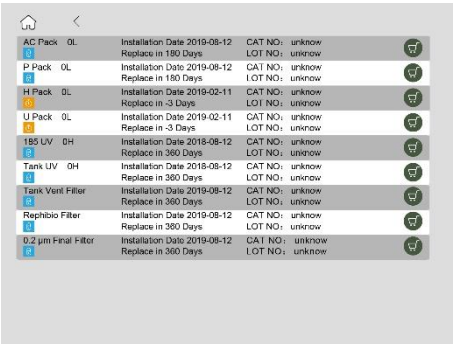
Information Menu

Swipe the screen to page 2 in Standby mode. Page 2 is Information Menu which contains information about system status and history.



Water Quality displays measured values about water.

- **Tank level and Volume**: Pure water tank level and volume are monitored.
- **UP, TOC and Temp.**: UP water resistivity, TOC and temperature are monitored.
- **Feed and Disp. Rate**: Feed water flow rate and UP water dispense rate are monitored.



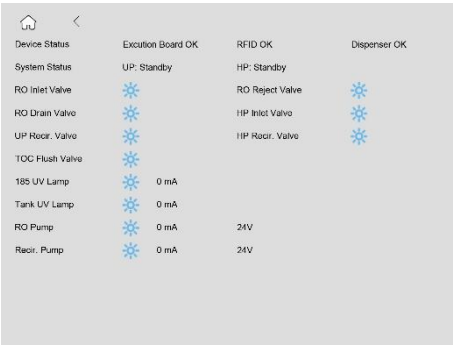
Consumables Status

Displays details of consumables installed, including processed volume/time, installation date, remaining life, catalog number and lot number.

You can order consumables by clicking  on this page.

 Means the component working normally.

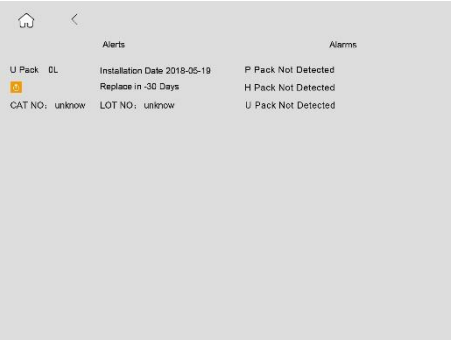
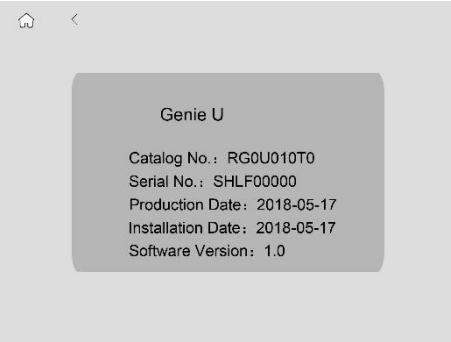
 Means the component needing to be replaced.



System Status provides information about the components operation status.

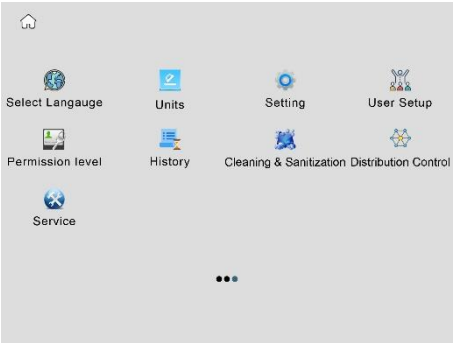
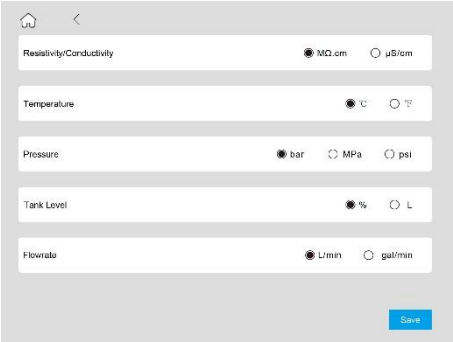
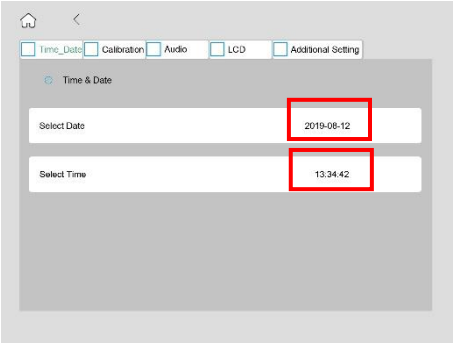
 Means the component is functional. The screen displays operating current or voltage for UV lamp and pump.

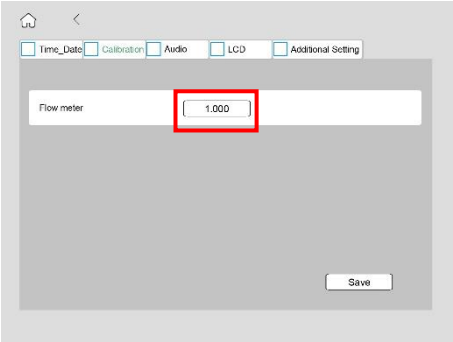
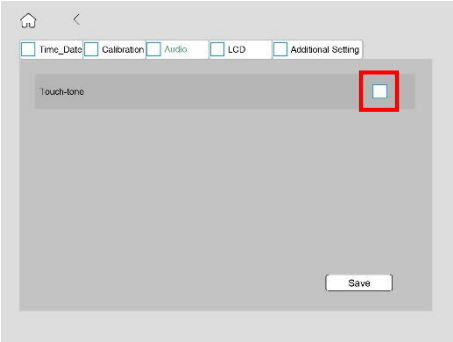
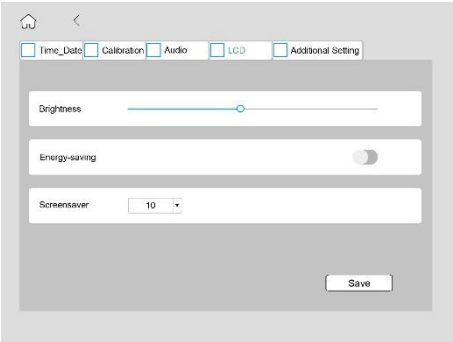
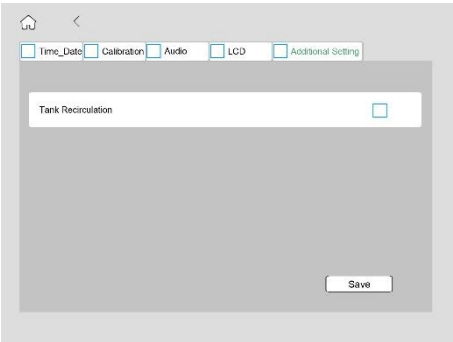
 Means the component is off.

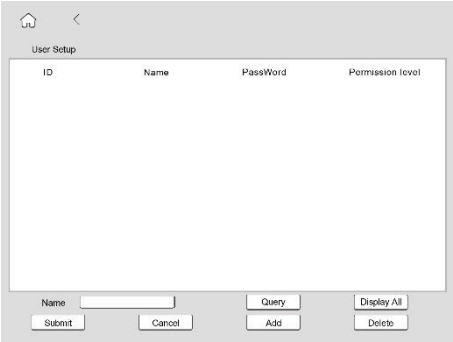
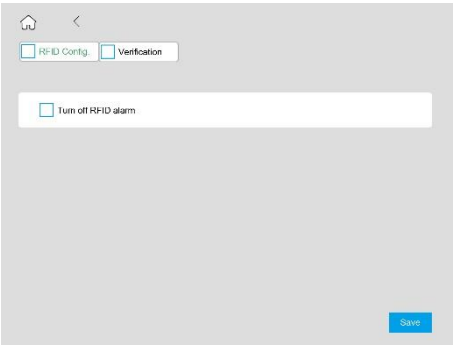
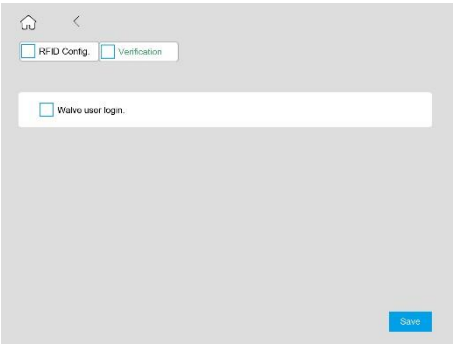
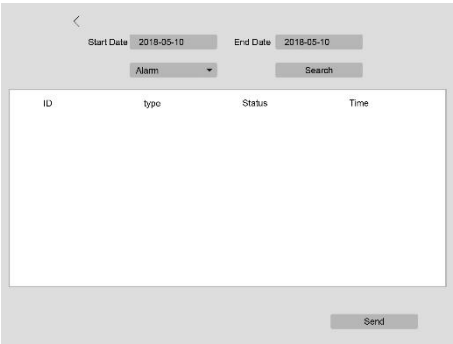
	**Alarms & Alerts**: Alarms sign appears when there is a technical issue. Some **red alarms** stop the system from operating to protect the system. Alerts appear when a consumable needs to be replaced or a non-critical event occurs.
	**About** Including: catalog number, serial number, production date, installation date and software version. You may need to provide some or all of these information when requesting service.

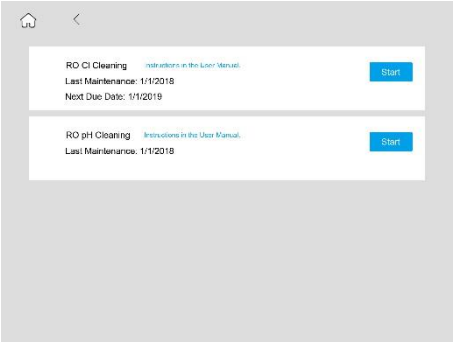
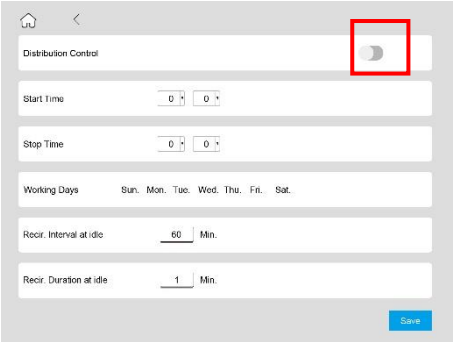
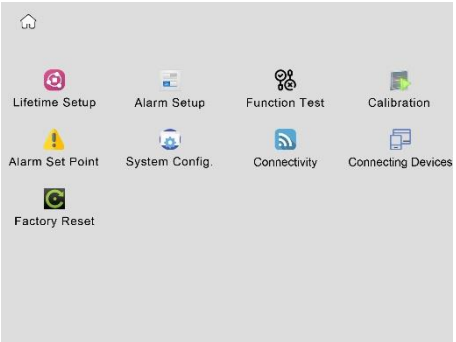
3.6 Maintenance Menu

Notes: Maintenance menu is password protected for system administrators. The log-in information is in the USB stick shipped with the system.

	**Maintenance Menu** Swipe left on the Screen to page 3 in Standby mode. Page 3 is Maintenance Menu which contains parameter setup, RO cleaning, etc. Page 3 is a manager authorized operation interface.
	**Select Language** (no password required) Choose your working language desired.
	**Units of Display** (no password required) Change unit of display, including water quality, temperature, pressure and dispense rate.
	**Setting** Including time & date, calibration, audio, LCD and additional setting. **Time & Date** Choose the locate time and date.

	**Calibration** The calibration menu is used to calibrate water dispense rate from the dispenser.
	**Audio** You can decide to activate touch click sounds.
	**LCD** Change screen brightness and choose energy-saving if needed. Set the time for screensaver.
	**Additional Setting** Provide selections to open or close tank recirculation.

	**User Setup** Manager can add new account to operate the system. Tap **Add**, then enter a new username and password under **Name** and **Password** to add a new account. Select the user level under **Permission**. **User** is for general user, dispense water only. **Manager** means a user has the right to add new account. Then tap **Submit** to complete the setup.
	**Permission Level** Including RFID Config. and Verification. **RFID Config.** Turn on and off RFID alarm. If the RFID alarm is off, system wouldn't show alarms for any RFID error, and can start without cartridges or with incorrect cartridges.
	**Verification** Turn on and off user verification. Users don't need to enter a name when replacing consumables if it is checked. It's off by default.
	**History** Provide historical information related to your system. The system data can be filtered by date and the selected data can be exported.

	**Cleaning & Sanitization** Shows information about the cleaning that is performed on the system. Including Cl cleaning and pH cleaning.
	**Distribution Control** For system equipped with a distribution pump, tap **Distribution Control** to set the distribution pump. This function is for Super-Genie systems. Click **Off** to turn the function off.
	**Service** Service menu is an engineer authorized operation interface.

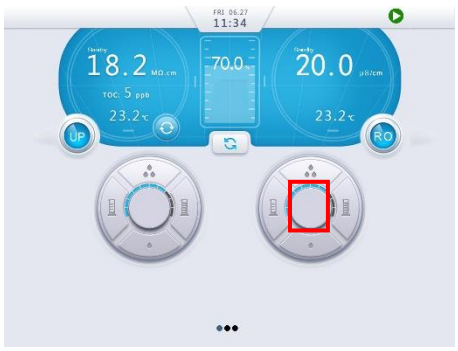
4 DISPENSING WATER

Water can be dispensed from the dispenser handle either by pressing the dispense button on the handle or from the main control console.

4.1 Dispensing RO Water

4.1.1 Press the dispense button on the dispenser to dispense RO water. Press the dispense button again to stop dispensing. Or

4.1.2

	Tap the left cylinder icon to decrease the volume to 0 L. Tap the dispense button to dispense RO water. Tap it again to stop dispensing.

4.1.3 Open the water faucet to dispense RO water directly from the pure water tank.

Note: Dispensers are interlocked. Only one dispenser can be used at a time. Other dispensers will display “In Use” on the dispenser.

4.2 Dispensing UP Water

4.2.1 Tap recirculation icon on the main console or on the dispenser to start recirculation. When the resistivity reaches 18.2 MΩ.cm, press the dispense icon on the monitor or on the dispenser to dispense UP water. Press the dispense icon again to stop dispensing.

4.3 Adjusting Dispense Rate

To change the dispense rate, tap the icon or on home screen or dispenser monitor.

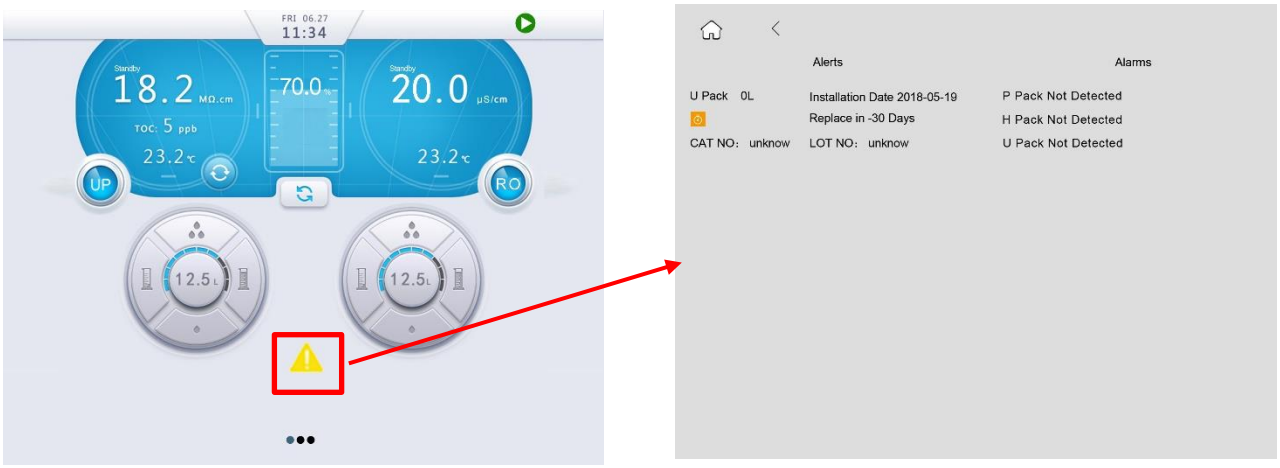
4.4 Volumetric Dispensing

	Setting up is the same on the dispenser or the control console. Tap recirculation icon on the home screen to enter Recirculation mode until the resistivity reaches 18.2 MΩ.cm.

	Tap the right cylinder icon to increase or the left cylinder icon to decrease the volume. You can set the volume between 0.1 and 99.9 liters.
	Tap the middle dispensing icon  to start dispensing. Volume dispensed is displayed on the start button position. Volumetric dispensing will stop automatically after completion.

5 MAINTENANCE

5.1 Basic Alerts



Message	Solution
RO Cl_2 Cleaning Last Maintenance XXXX-XX-XX	Perform RO Membrane Cl_2 Cleaning
AC-Pack 30000 L Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system. CAT NO: RR700AC01 LOT NO: S6PDC0101	Exchange the AC Pack and reset.
P-Pack 30000 L Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system. CAT NO: RR700CP01 LOT NO: S6PDC0101	Exchange the P Pack and reset.
H-Pack 3000 L Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system. CAT NO: RR700H101 LOT NO: S6PDC0101	Exchange the H Pack and reset.
U-Pack 3000 L Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system.	Exchange the U Pack and reset.

CAT NO: RR700Q101 LOT NO: S6PDC0101	
185 UV 500 H Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system. CAT NO: RAUV357B7 LOT NO: S6PDC0101	Exchange the 185 nm UV lamp and reset.
Tank UV 1500 H Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system. CAT NO: RAUV357A7 LOT NO: S6PDC0101	Exchange the tank UV lamp and reset.
Tank Vent Filter Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system. CAT NO: RATANKVN7 LOT NO: S6PDC0101	Exchange the tank vent filter and reset.
Final Filter 360 D Installation Date: XXXX-XX-XX It is XX days overdue. Please replace it in time so as not to affect the performance of the system. CAT NO: RAFFC7250 LOT NO: S6PDC0101	Exchange the final filter and reset.

5.2 Basic Troubleshooting

If you encounter any electronic error**, restart the system first before doing any troubleshooting.**

Alarm / Phenomenon	**Solution**
Low Feed Water Pressure	• The system detects the feed water pressure is below the lower limit. • Check the tap water faucet. • Replace prefilters in the prefiltration pack when check the prefilter is clogged. • Contact RephiLe's engineer to have an external booster pump or solenoid valve installed if there is still the problem.
Feed Water Conductivity > SP	• Feed water quality is too poor • Contact a RephiLe professional engineer.
RO Product Conductivity>SP	• RO product conductivity is above preset value. • Replace the RO membrane or contact a RephiLe professional engineer.
RO Rejection Rate<SP	• RO rejection is below preset value. • Replace the RO membrane or contact a RephiLe professional engineer.
UP Product Resistivity < SP	• UP product resistivity is below preset value. • Exchange both H Pack and U Pack cartridges, or contact a RephiLe professional engineer.
Low Pure Water Tank Level	• Pure water tank level is below preset value (10%). • Stop dispensing until water tank is refilled.
Tank Water Resistivity<SP	• Pure tank water resistivity is below preset value. • Replace T Pack or contact a RephiLe professional engineer.
Pure Water Dispensing Resistivity < SP	• HP product resistivity is below preset value. • Exchange T Pack or contact a RephiLe professional engineer.
Check 185 UV Lamp	• The 185 nm UV lamp may be burnt. • Exchange the 185 nm UV lamp or contact a RephiLe professional engineer.
Check Tank UV Lamp	• The tank UV lamp may be burnt. • Exchange the tank UV lamp or contact a RephiLe

	professional engineer.
xx-Pack Error!, system does not start	• Incorrect cartridge is installed. Reinstall to the correct position • Turn RFID alarm off, so system can start
AC-Pack Not Detected	• Reinstall the AC Pack. • Check the RFID chip. • Contact a RephiLe professional engineer.
P-Pack Not Detected	• Reinstall the P Pack. • Check the RFID chip. • Contact a RephiLe professional engineer.
H-Pack Not Detected	• Reinstall the H Pack. • Check the RFID chip. • Contact a RephiLe professional engineer.
U-Pack Not Detected	• Reinstall the U Pack. • Check the RFID chip. • Contact a RephiLe professional engineer.
Feed Temperature>45 ^{o}C	• Contact a RephiLe professional engineer.
Feed Temperature<5 ^{o}C	• Contact a RephiLe professional engineer.
RO Product Temperature>45 ^{o}C	• Contact a RephiLe professional engineer.
RO Product Temperature<5 ^{o}C	• Contact a RephiLe professional engineer.
UP Product Temperature>45 ^{o}C	• Contact a RephiLe professional engineer.
UP Product Temperature<5 ^{o}C	• Contact a RephiLe professional engineer.
TOC Sensor Temperature>45 ^{o}C	• Contact a RephiLe professional engineer.
TOC Sensor Temperature<5 ^{o}C	• Contact a RephiLe professional engineer.
TOC Feed Resistivity<15 MΩ.cm	• Contact a RephiLe professional engineer.
Cannot dispense water from dispenser. It shows “In Use”	• Another dispenser connected to the same systems is being used. System allows one dispenser working at a time. Wait till the other dispenser stopped dispensing.
System leakage	• The system detects a leakage. • Shut off power and water supply. • Remove system side panels, turn on water supply and check leaking points. • Reconnect or replace leaking parts.

5.3 System Cleaning

5.3.1 Cl Cleaning

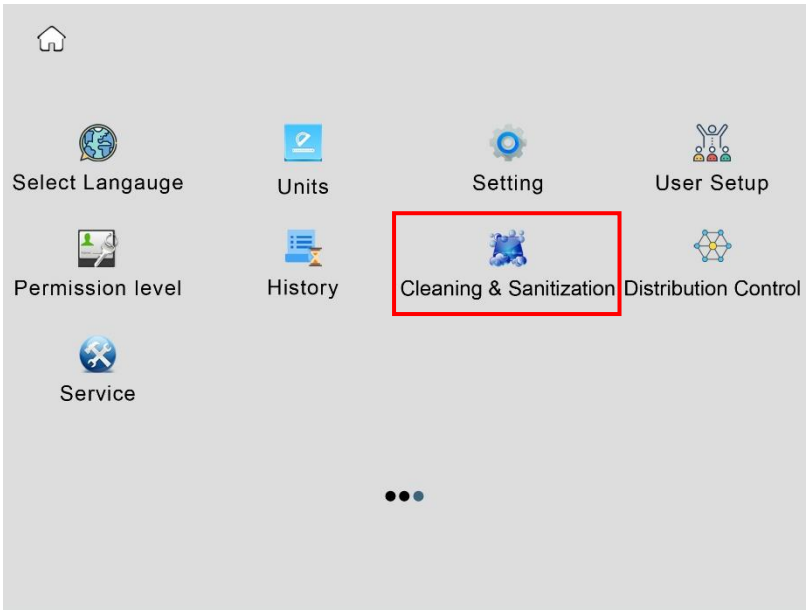
The alert of “Cl cleaning” will display every year and it takes 20 minutes to complete.

a) Switch the system to Standby mode and remove the left side panel.

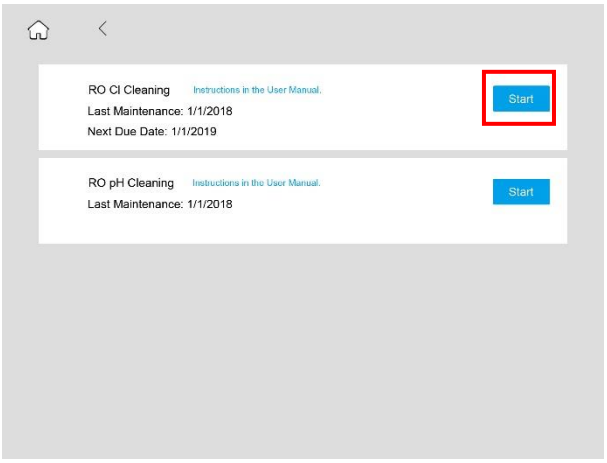
b) Remove the P Pack cartridge.

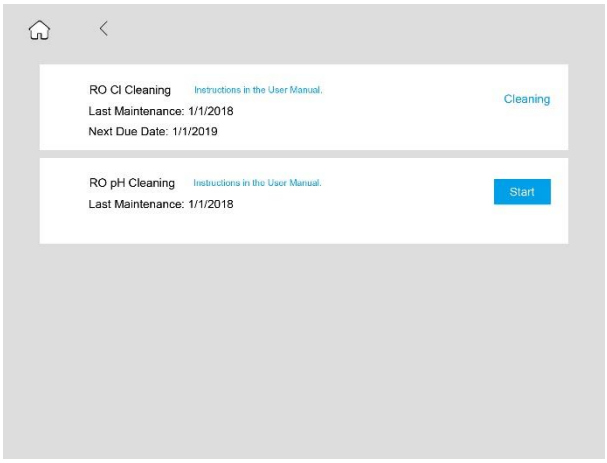
c) Install the Cleaning Pack (come with each new system). Need to add one chlorine pill in to the Cleaning Pack.

d) Tap **Cleaning & Sanitization** on **Maintenance Menu** on the control console to enter setup menu.



e) Click **Clean** to enter cleaning process. Choose **Yes** on the pop-up dialog.





f) System will be back to Standby mode after Cl cleaning stops.

g) Remove the Cleaning Pack and install P Pack back.

h) Switch the system to Ready mode.

5.3.2 pH Cleaning

pH cleaning is recommended for the following situations and it takes 90 minutes to complete.

1. RO water production rate decreased significantly;
2. RO rejection rate is significantly reduced.

pH cleaning are divided into acid cleaning and alkali cleaning. The acid cleaning is used to remove scale and other inorganic compounds attached to the RO membrane, and the alkali cleaning is used to remove adherent organic substances on the RO membrane.

The Acid cleaning steps are as follows:

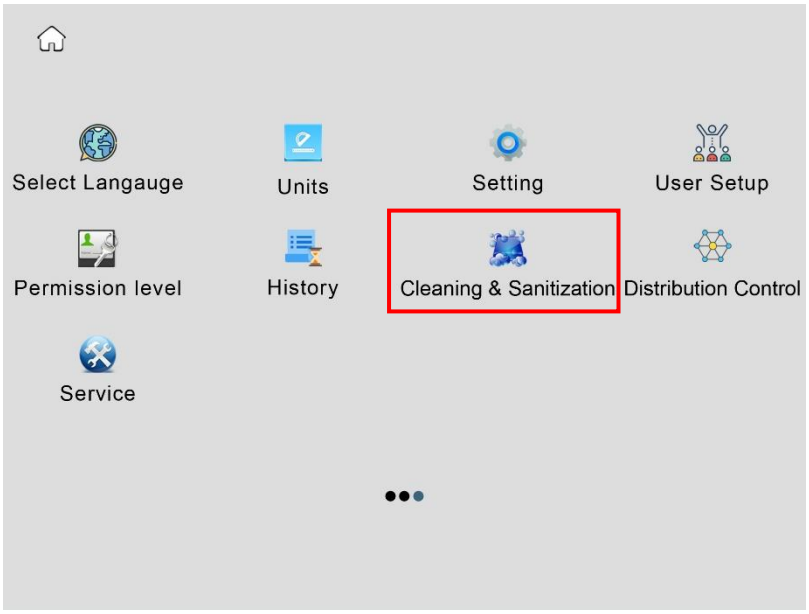
a) Switch the system to Standby mode and remove the left side panel.

b) Remove the P Pack cartridge.

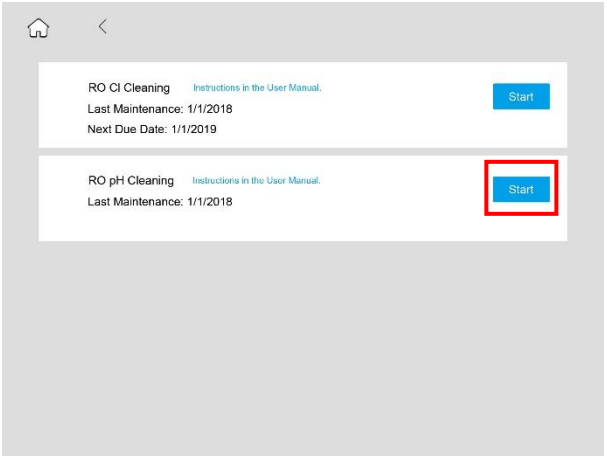
c) Add 5 g analytical grade citric acid into the Cleaning Pack.

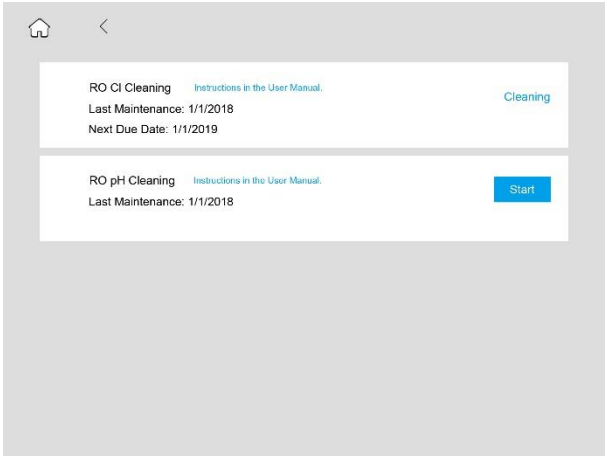
d) Install the Cleaning Pack to the position of P Pack.

e) Tap **Cleaning & Sanitization** on **Maintenance Menu** to enter setup menu.



f) Click **Clean** to enter cleaning process. Choose Yes on the pop-up dialog.





g) System will be back to Standby mode after pH cleaning stops.

h) Remove the Cleaning Pack and install P Pack back.

i) Switch the system to Ready mode.

The Alkaline cleaning steps are as follows:

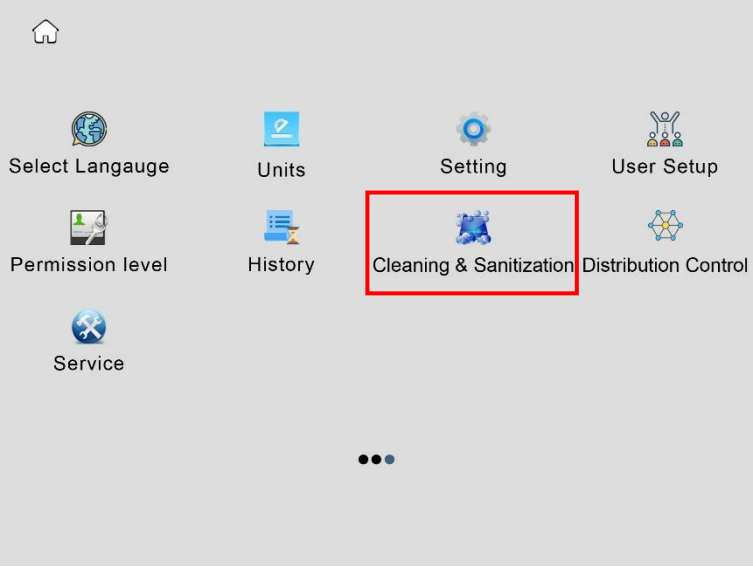
a) Switch the system to Standby mode and remove the left side panel.

b) Remove the P Pack cartridge.

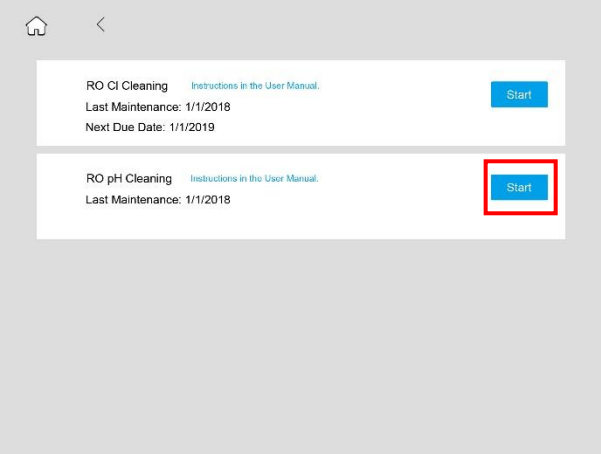
c) Add 5 g analytical grade NaOH into the Cleaning Pack.

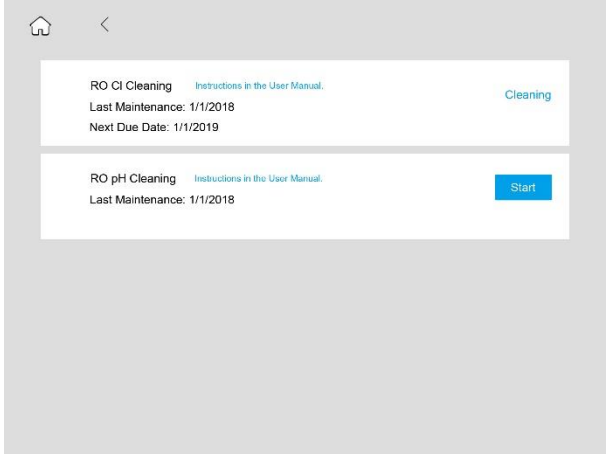
d) Install the Cleaning Pack to the position of P Pack.

e) Tap **Cleaning & Sanitization** on **Maintenance Menu** to enter setup menu.



f) Click **Clean** to enter cleaning process. Choose Yes on the pop-up dialog.





g) System will be back to Standby mode after pH cleaning stops.

h) Remove the Cleaning Pack and install P Pack back.

i) Switch the system to Ready mode.

If the effect is not obvious after the cleaning, need to do pH cleaning once again. If there is still no obvious improvement after cleaning twice, replace the RO membrane.

5.4 Replacing Consumables

Consumable life, in particular cartridges, is heavily dependent upon feed water quality and amount of water used. Below is a general guideline of frequency to replace consumables**.**

Consumables		**Replacement Frequency**	**Performance Indicator**
P Pack & AC Pack		6 months	May cause irreversible scaling and oxidation of RO membrane.
Dual UV lamp		24 months	Increase in TOC
Final Filter	Remove bacteria and particles	12 months	Reduce in flow rate
		When needed	Flow rate is less than 1 liter per minute
H Pack & U Pack	Polishing pure water	When needed or 12 months	Reduce in resistivity of ultrapure water
RephiBio filter	Removes pyrogen, RNases and DNases	3 months	Increased pyrogen, RNases and DNases levels

System administrator can set Permission for cartridge replacement in Maintenance Menu. System default is OFF. If the **Verification** is **On**, User need to enter a name to verify the installation. Only authorized Users registered in the system are allowed to install or replace consumable.

The following consumables RFID tags need to be scanned on the on RFID scanner at the AC-Pack location to register: RO Pack, T Pack (Optional), 185 nm UV lamp, tank sanitization module and final filter in their corresponding box to register the consumables. Tap **Install** when a pop-up dialog is appear.

5.4.1 Replacing the Genie AC Pack, Genie P Pack, T Pack (Optional), Genie H Pack and Genie U Pack Cartridges

a) Switch the system to Standby mode, then remove the system left and right side panels.
b) Turn the lever on the cartridge adapter to right to the unlock position, pull the cartridge downwards to disengage the cartridge from its adapter. Install the new one as described in 2.4.4.
c) After installation, do not install the system side panel. Power up and degas the system, and check any leakage. If leaks, reseat the cartridge, then test again.
d) If there is no leakage, install back the right side panel.
e) Remove the final filter before replacing Genie U Pack. Release pressure by dispensing some water. Install the final filter after installing the cartridge.
f) Scan the RFID chip for the T Pack (Optional) on the AC-Pack location. Need to put system to Standby mode and remove the AC Pack first to scan if already installed. Tap **Install** on the pop-up dialog to reset the cartridge life.

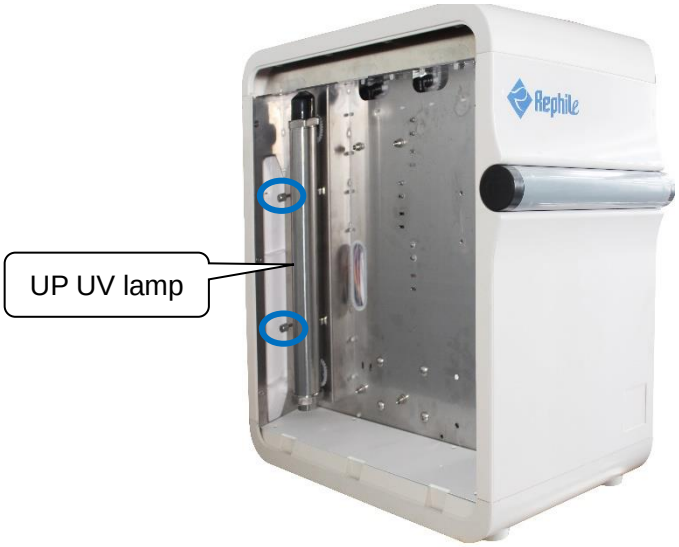
5.4.2 Replacing the UP UV Lamp (185 nm)

Warning!

Ultraviolet (UV) radiation is harmful to the eyes and skin. Do not observe the lamp directly when it is illuminated. This system is equipped with a lamp cover to prevent UV light leakage. This cover must be on ALL TIMEs when a UV lamp is installed.

Caution!

Keep the UV lamp straight in and out of the stainless steel chamber during its installation to avoid any action that could cause the lamp to break.

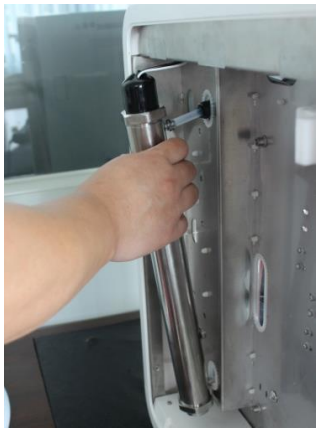


a) Turn off the power.

b) Remove the left side panel to find the UV lamps.

c) Loosen the UV lamp chamber screws. As shown above, the blue circles indicate the UP water UV lamp chamber screws.

d) Tilt the upper end of the UV lamp chamber out.



e) Wear gloves included in the new UV lamp package. Avoid direct skin contact with the quartz glass of the UV lamp. Remove the UV lamp cover to expose the UV lamp. Unplug the UV lamp from its power cord, and then carefully remove the old UV lamp from the chamber.

f) Carefully insert the new UV lamp into its chamber. When about 2/3 of the lamp is inserted, hold the UV lamp and connect it to the ballast cable connector (4-pin connector) as shown in the picture, and then gently insert the new UV lamp completely into the chamber.

g) Cap the UV chamber with the black mask.

h) Install the UV lamp chamber back to the original position.

i) Turn on the system power. Scan the RFID chip for the UV lamp on the system. Tap **Install** on the pop-up dialog to reset the corresponding UV lamp.

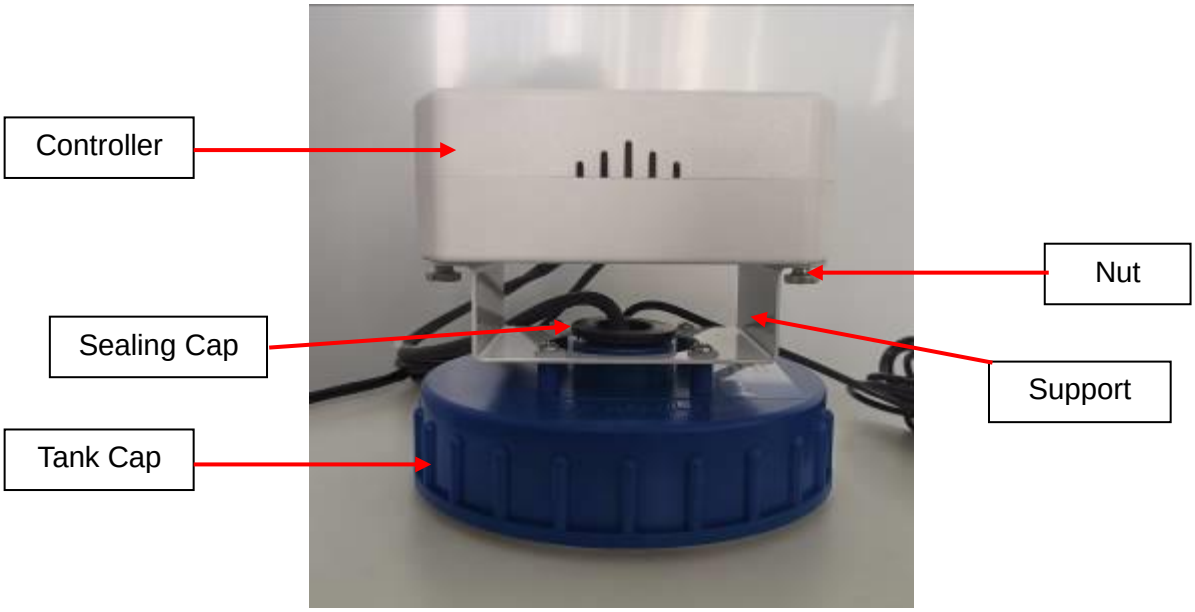
5.4.3 Replacing the Tank UV Lamp

Warning!

Ultraviolet (UV) radiation is harmful to the eyes and skin. Do not observe the lamp directly when it is illuminated. This system is equipped with a lamp cover to prevent UV light leakage. This cover must be on ALL TIMEs when a UV lamp is installed.

Caution!

Keep the UV lamp straight in and out of the stainless steel chamber during its installation to avoid any action that could cause the lamp to break.



a) Power off the Genie main system.

b) Screw off the nut on the back of the controller. Remove the controller and carefully remove the used lamp from the chamber. Unplug the UV lamp base.

c) Wear gloves included in the new UV lamp package. Avoid direct skin contact with the quartz glass of the UV lamp. Install the new UV lamp to the lamp base, and then gently insert the new UV lamp completely into the chamber.

d) Screw the sealing cap on the tank cap, and then screw the nut to fix the controller on the tank cap.

e) Turn on the power and operate the system. Scan the RFID tag for the tank sanitization module on the RFID reader position (AC Pack) to register it.

5.4.4 Replacing the RO Pack

f) Switch the system to Standby mode, then remove the system right side panel.

g) Turn the lever on the cartridge adapter to right to the unlock position, pull the cartridge downwards to disengage the RO Pack from its adapter. Install the new one as described in 2.4.4.

h) After installation, do not install the system side panel. Power up and degas the system, and check any leakage. If leaks, reinstall the cartridge, then test again.

i) If there is no leakage, install back the right side panel.

j) After RO Pack is installed, the system will perform 5 minutes RO flush when switching to Ready mode.

k) Scan the RFID chip for the RO Pack on the system. Tap **Install** on the pop-up dialog to reset the cartridge life.

5.4.5 Replacing the Tank Vent Filter

a) Remove the old tank vent filter.

b) Screw the new tank vent filter to the bass on the tank.

c) Scan the RFID chip for the tank vent filter on the system. Enter Components Installation menu to reset the corresponding tank vent filter.

5.4.6 Replacing the Final Filter

a) Remove the final filter

b) Install the filter into UP outlet firmly and make sure no leaking. Dispense UP water to degas. Stop UP dispensing, installation finished.

c) If a final ultrafiltration cartridge is needed, install the device the same way as the final filter.

5.4.7 Cleaning the PE Tank

 **Warning!**

NaOH is a strong corrosion agent which may harm the body. Be careful to protect yourself when cleaning the tank.

a) Switch the system to Standby mode when the tank is full (100%).

b) Prepare 0.1 M NaOH using analytical grade NaOH (120 g NaOH for the 30-L tank, and 240 g for the 60-L tank). Dissolve in 1 L pure water, and then pour into the water tank. Gently mix.

c) Soak the tank overnight.

d) Take out the 8 mm PE tubing and connect it to the drain outlet of the tank, put the other end into the drain.

Note: Please check local regulations on how to properly discharge 0.1 M NaOH.

e) Open the drain valve underneath the tank, drain all solution.

f) Close the valve by turning it 90º. Put system into Ready mode to fill the tank full. Put system into Standby mode.

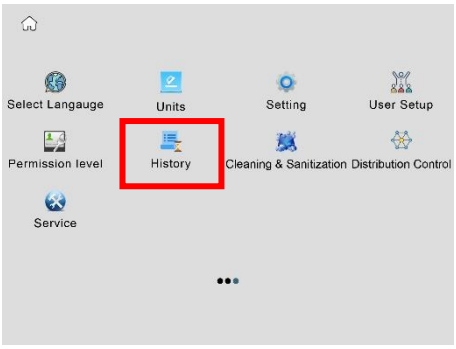
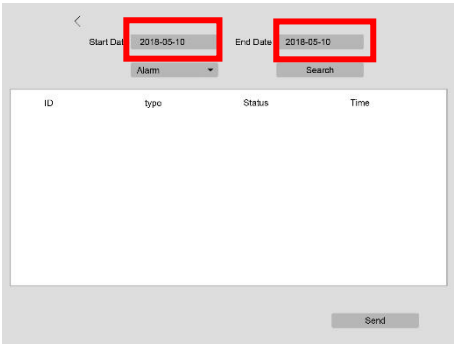
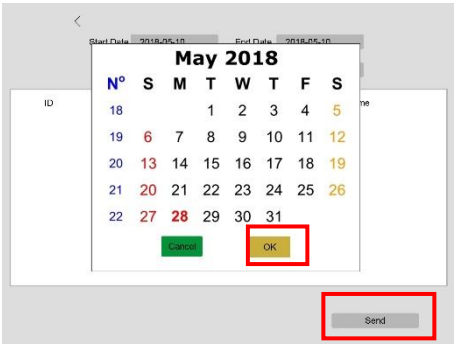
g) Gently tilt the tank and swirl, then open the valve to drain all water.

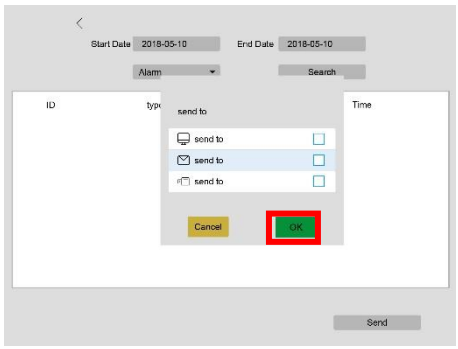
h) Repeat Step f and g for two more time.

i) Take a water sample from the tank. Use a pH paper to check its pH. If the water is basic, repeat **Step f** and **g** one more time.

j) Plug the tubing back to the system. Put the system into Ready mode.

5.5 History Inquiry and Export

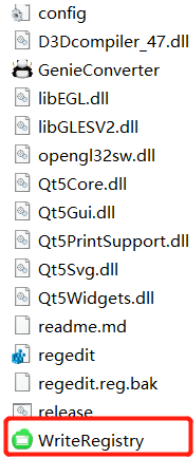
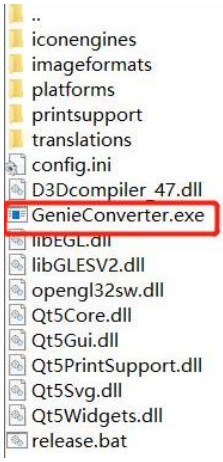
	Insert a USB stick into the port on the control console as shown.
	Swipe left on the home screen to Maintenance Menu in Standby mode. Tap **History** on Maintenance Menu.
	Tap **Start Date** and **End Date** to choose the date that need to check.
	Tap **Search** to check the history data. The history data include- water quality, alarms information, dispensing information, product information and daily record.

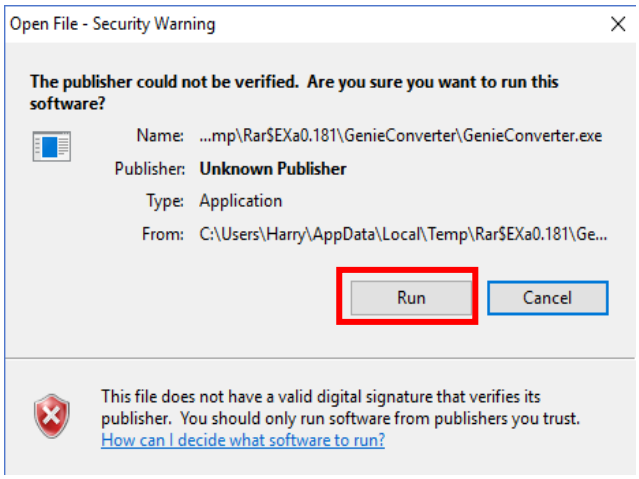
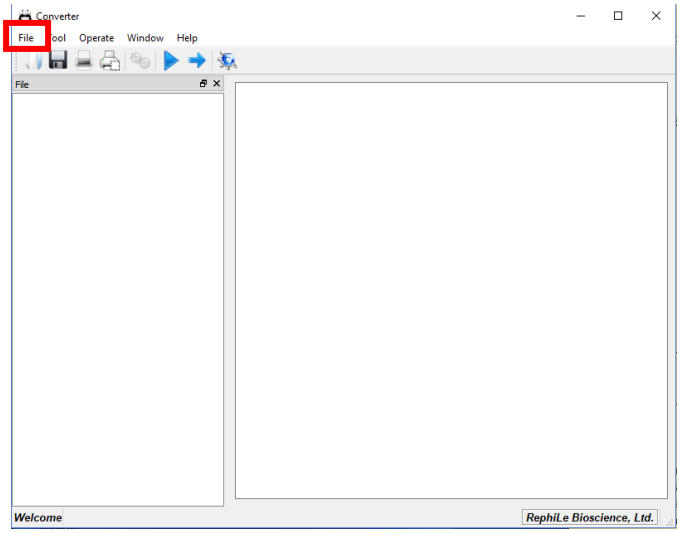
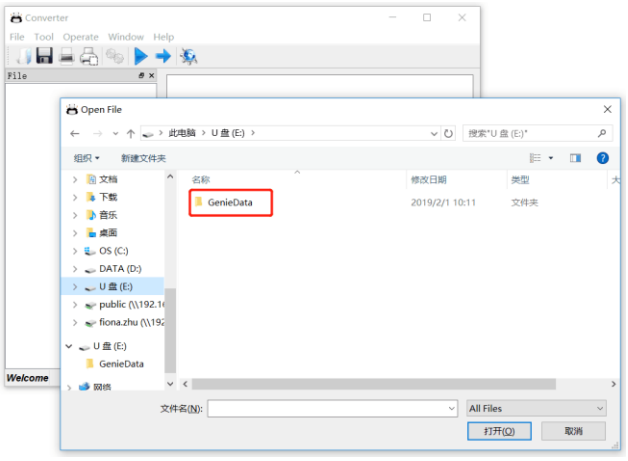
	Choose the way to send the data. Check the red box and tap **OK**, then tap **Send**.

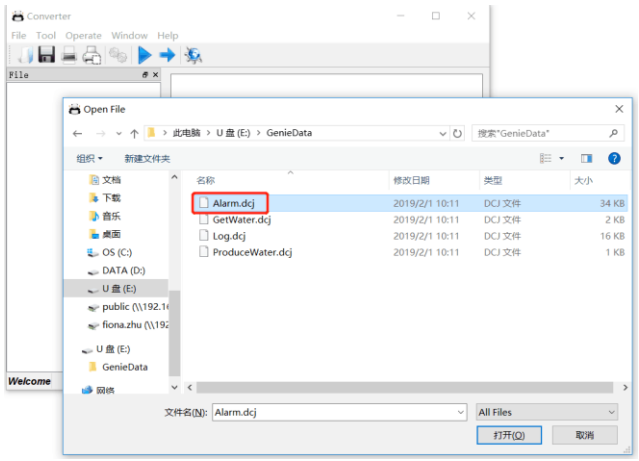
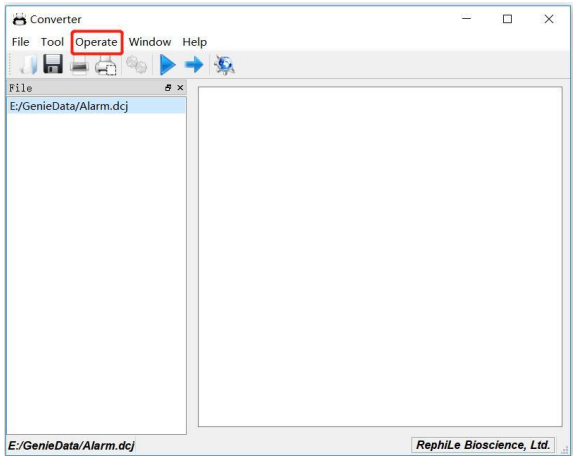
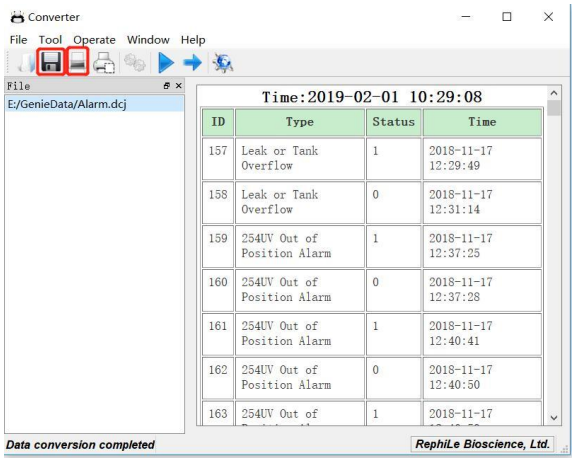
Read and Print the Exported History Data from a PC Computer:

Exported data are encrypted. The files exported can be read as pdf files or printed using RephiLe's Genie Converter. Genie Conver SW is on the USB that comes with the system.

- Insert a USB stick to the right side of the control console to export the history data as shown above.
- Insert the USB stick to a computer.
- Follow the steps below to read, save or print the data for the first time, then tap the data in the .dcj file in GenieData to open it directly.

	Copy the Converter file to your computer from the SD card. Tap the file "**WriteRegistry.exe**" as an administrator to complete the registration.
	Tap the file "**GenieConverter.exe**" to open it.

	Tap “**Run**” to open the program. **Note:** If the software cannot run, then install MSVBCRTAIO_X86 program for 32-bit operating system. Install MSVBCRTAIO_X64 program for 64-bit operating system.
	Tap “**File**”, choose “**Open**”.
	Choose the file folder “**GenieData**” from the USB stick to open it.

	Choose the data file you wish to check and then open it.
	Tap “**Operate**”, then choose “**Convert**”.
	The data are as shown right. You can **Save** the data in pdf format or **Print** it by tapping the icons as shown in the red boxes.

6 PARTS AND ORDER INFORMATION

Genie U Systems

Catalog Number	Genie U System
RG0U01000	Genie U 12 Ultrapure water system
RG0U010T0	Genie U 12 Ultrapure water system, with TOC
RG0U02000	Genie U 24 Ultrapure water system
RG0U020T0	Genie U 24 Ultrapure water system, with TOC
RG0U03000	Genie U 32 Ultrapure water system
RG0U030T0	Genie U 32 Ultrapure water system, with TOC

Commonly Used Consumables

Catalog No.	Product Name	Description	Unit
RG0P0U001	Dispenser with support	With a 3 m corrugated pipe, including data cables and water tubing	Set
RG0P0U012	Upgrade kit for dispenser	With power adapter, three power cords, 20 m water tubing and 10 m corrugated pipe	Set
RG0B01001	Control console		Each
RATK030L0	Tank	30 Liter PE tank, w/continuous level sensor & overflow sensor	Each
RATK060L0	Tank	60 Liter PE tank, w/continuous level sensor & overflow sensor	Each
RR700CP01	Genie P pack		Pack
RR700AC01	Genie AC pack		Pack
RR700H101	Genie H Pack		Pack
RR700Q101	Genie U pack		Pack
RR700Q301	Genie U pack (low TOC)		Pack
RR700T101	Genie T pack		Pack
RR700CL01	Genie cleaning pack		Pack

RAFC00124	Chlorine cleaning pill	24/pk	Each
RR70R1001	Genie RO pack, 12 L/H	For Genie U 12/24, one / two packs need to be replaced every time	Pack
RR70R1501	Genie RO pack, 16 L/H	For Genie U 32, two packs need to be replaced every time	Pack
RAUV357B7	185 nm UV lamp		Each
RASP742	RO booster pump	24 VDC, 1/pk	Each
RASP743	UP recirculation pump	24 VDC,1/pk	Each
RAFFC7250	Final filter	0.2 µm PES final capsule filter, 1/pack	Each
RAFFB7201	RephiBio filter	Point-of-use filter, 1/pack	Each
RAPRC0117	Leak protector		Each
RATANKVN7	Tank vent filter		Each
RAPRC0127	Tank sanitization module		Each
RAUV357A7	Tank UV lamp	UV lamp, 254 nm	Each

Other Maintenance Spare Parts

Please contact RephiLe or your distributor for ordering information.

- Resistivity Sensor
- Conductivity Sensor
- Execution Board
- Extension Board
- Electrode Board
- Chip Reader
- Flow meter
- Pressure Gauge
- Commonly Used Connector Package
- Solenoid Valve
- Check Valve
- Flow Restrictor
- Temperature Sensor
- Pressure Regulator
- UV Lamp Housing (with connectors)
- UV Lamp ballast
- Power Adapter

7 WARRANTY INFORMATION

Conditions of Sales

RephiLe Bioscience, Ltd. manufactures and sells various kinds of water systems that meet quality specifications. When used and maintained as instructed in this manual, these systems can produce ultrapure water that meets or exceeds quality standards set forth by all international standardization bodies.

RephiLe is committed to improve its products and services. As a result, the information contained in this manual may be changed without further notice. RephiLe Bioscience, Ltd. assumes no responsibility for any errors that may appear in this manual.

This Genie U water system was manufactured in a RephiLe Bioscience's plant. The plant's quality management system has passed the ISO 9001:2015 quality management systems.

Water System Limited Warranty

RephiLe Bioscience, Ltd. warrants the water system against defects due to materials and workmanship when used in compliance with instructions and operating conditions specified in this manual. RephiLe Bioscience warrants the system for 12 months from the earlier of

1. The date of installation, or
2. The 183th day of shipment from RephiLe Bioscience's warehouse.

Within the warranty period, RephiLe Bioscience will provide replacement for the defected parts at no charge. Such service must be conducted by RephiLe or its authorized distributor. This warranty does not include cartridges.

Other than the warranty expressed above, RephiLe Bioscience disclaims any other warranty, express or implied, including marketability and suitability of use. RephiLe Bioscience shall under no circumstance be liable for incidental or consequential damages.

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