Operating Instructions
Original Operating Instructions

Arium® Smart Station

H2O-ARST-P-B | H2O-ARST-P-T | H2O-ARST-UP-B | H2O-ARST-UP-T
Dispensing Unit

1000084125

Contents

1 About these Instructions

1.1 Scope

These instructions are part of the device. These instructions apply to the device in the following versions:

Device	Model
Dispensing unit as benchtop version for ultrapure water, “Ultrapure” version (type 1)	H2O-ARST-UP-T
Dispensing unit as benchtop version for pure water, “Pure” version (type 2 and type 3)	H2O-ARST-P-T
Dispensing unit with wall mounting bracket for ultrapure water, “Ultrapure” version (type 1)	H2O-ARST-UP-B
Dispensing unit with wall mounting bracket for pure water, “Pure” version (type 2 and type 3)	H2O-ARST-P-B

1.2 Accompanying Documents

▶ In addition to these instructions, observe the following documentation:
  – Instructions for the water treatment device used, e.g. Arium® Pro, Arium® Comfort, Arium® Advance, and Arium® Bagtank

1.3 Target Groups

The instructions are designed for the following target groups. The target groups must possess the knowledge listed below.

Target Group	Knowledge and Qualifications
User	The user is familiar with the operation of the device and the associated work processes. The user understands the hazards which may arise when working with the device and knows how to prevent them. They have been trained in the operation of the device.
Administrator	The administrator is responsible for integrating the device into the production process. The administrator ensures the reliable functioning of the system and device software. The administrator is trained in the operation of the device.
Operator	The operator of the device is responsible for ensuring compliance with workplace health and safety regulations. The operator must ensure that anyone working with the device has access to the relevant information and is trained to work with the device.

1.4 Symbols Used

1.4.1 Warnings in Operation Descriptions

⚠ WARNING
Denotes a hazard that may result in death or severe injury if it is **not** avoided.

⚠ CAUTION
Denotes a danger with risk that moderate or minor injury may result if it is **not** avoided.

NOTICE
Denotes a hazard that may result in property damage if it is **not** avoided.

1.4.2 Other Symbols

▶	Required action: Describes actions which must be carried out. The actions in the sequence must be carried out in succession.
▷	Result: Describes the result of the actions carried out.
[ ]	Text inside brackets refers to operating and display elements.
[ ]	Text inside brackets indicates status, warning, and error messages.

Figures on the Operating Display

The figures on the operating display of the device may differ from those in these instructions.

2 Safety Information

2.1 Intended Use

The device is a dispensing unit and is used to dispense water from an Arium® water treatment device or Arium® Bagtank. The device must be operated with pure or ultrapure water in a laboratory.

Up to three dispensing units can be connected to an Arium® water treatment device in series.

The device is exclusively designed for use according to these instructions. Any further use beyond this is considered **improper**.

If the device is used **improperly**: The device's protective systems may be impaired. This can lead to unforeseeable personal injury or property damage.

Operating Conditions for the Device

Do **not** use the device in potentially explosive environments. Only use the device indoors.

The device may only be used with the equipment and under the operating conditions described in the Technical Data section of these instructions.

2.1.1 Modifications to the Device

If the device is modified, for example by attaching extra components: The safety of the device may be impaired or the device compliance may lose its validity.

If you have any queries regarding modifications to the device, contact Sartorius.

2.1.2 Device Repairs and Maintenance

Device repairs and maintenance may only be carried out by persons with appropriate specialized knowledge. If the device is **not** repaired or serviced by a specialist: The safety of the device may be impaired or the test marks may lose their validity.

We recommend that any repair work, even that not covered by the warranty, is carried out by Sartorius Service or after consulting Sartorius Service.

Only the maintenance tasks described in these instructions should be carried out. For maintenance tasks that need to be carried out by Sartorius Service, contact Sartorius Service.

2.1.3 Foreseeable Misuse

It is only safe to use the device when operated in accordance with its intended use. The following applications, for example, are **not** permitted:

- The vessel to be filled overflows due to unattended water dispensing.
- Do not use unfiltered water, instead only use pure or ultrapure water.
- Do **not** connect the device to a drinking water line.
- The connection of unsuitable devices.

2.2 Personnel Qualification

If individuals who do **not** have sufficient knowledge on the safe handling of the device carry out work on the device: Those individuals may injure themselves or other people nearby.

- ▶ Ensure that all persons working on the device possess the necessary knowledge and qualifications (for description, see Chapter "1.3 Target Groups", page 5).
- ▶ If a particular qualification is required for the actions described: Have these activities carried out by the required target group.
- ▶ If **no** particular qualification is required for the actions described: Have these activities carried out by the "user" target group.

2.3 Significance of these Instructions

Failure to follow the instructions in this manual may have serious consequences, e.g. danger to individuals.

- ▶ Read the instructions carefully and completely. The required actions in the instructions build on each other.
- ▶ Ensure that the information contained in these instructions is available to all individuals working on the device.
- ▶ Retain the instructions.
- ▶ If these instructions are lost, request a replacement or download the latest version from the Sartorius website (www.sartorius.com).

2.4 Device Functionality

A damaged device or worn-out parts can cause malfunctions or lead to hard-to-detect hazards.

- ▶ Only operate the device when it is safe and in proper working order.
- ▶ Comply with the maintenance intervals (for intervals and maintenance work, see Chapter "8.2 Maintenance Schedule", page 58).
- ▶ Organize the immediate repair of any malfunctions or damage by Sartorius Service.

2.5 Safety Information on the Device

Symbols, e.g., warnings and safety stickers, are safety information for handling the device. Missing or illegible safety information may lead to serious injuries.

- ▶ Do **not** conceal, remove, or modify the symbols.
- ▶ Replace the symbols if they become illegible.

2.6 Electrical Equipment

2.6.1 Damage to the Device's Electrical Equipment

Damage to the device's electrical equipment, e.g., damaged insulation, may result in unforeseeable hazards.

- ▶ If the electrical equipment of the device is defective, cut off the power supply and contact Sartorius Service.
- ▶ Keep live parts away from moisture. Moisture can cause short circuits.

2.6.2 Power Supply Unit and Power Supply Cable

Serious injury can result, e.g., from electric shocks, if an unsuitable/ inadequately dimensioned power supply cable or unsuitable power supply unit is used.

- ▶ Only use the original power supply unit and original power supply cable.
- ▶ If the power supply unit or power supply cable must be replaced: Please contact Sartorius Service. Do **not** repair or modify the power supply unit or power supply cable.

2.7 Accessories, Consumables, and Spare Parts

Unsuitable accessories, consumables, and spare parts can adversely affect functionality and safety, and have the following consequences:

- Risk of injury to persons
- Damage to the device
- Device malfunctions
- Failure of the device

- ▶ You should only use approved accessories, consumables, and spare parts supplied by Sartorius.
- ▶ Only use accessories, consumables, and spare parts that are in proper working order.

3 Device Description

3.1 Device Overview

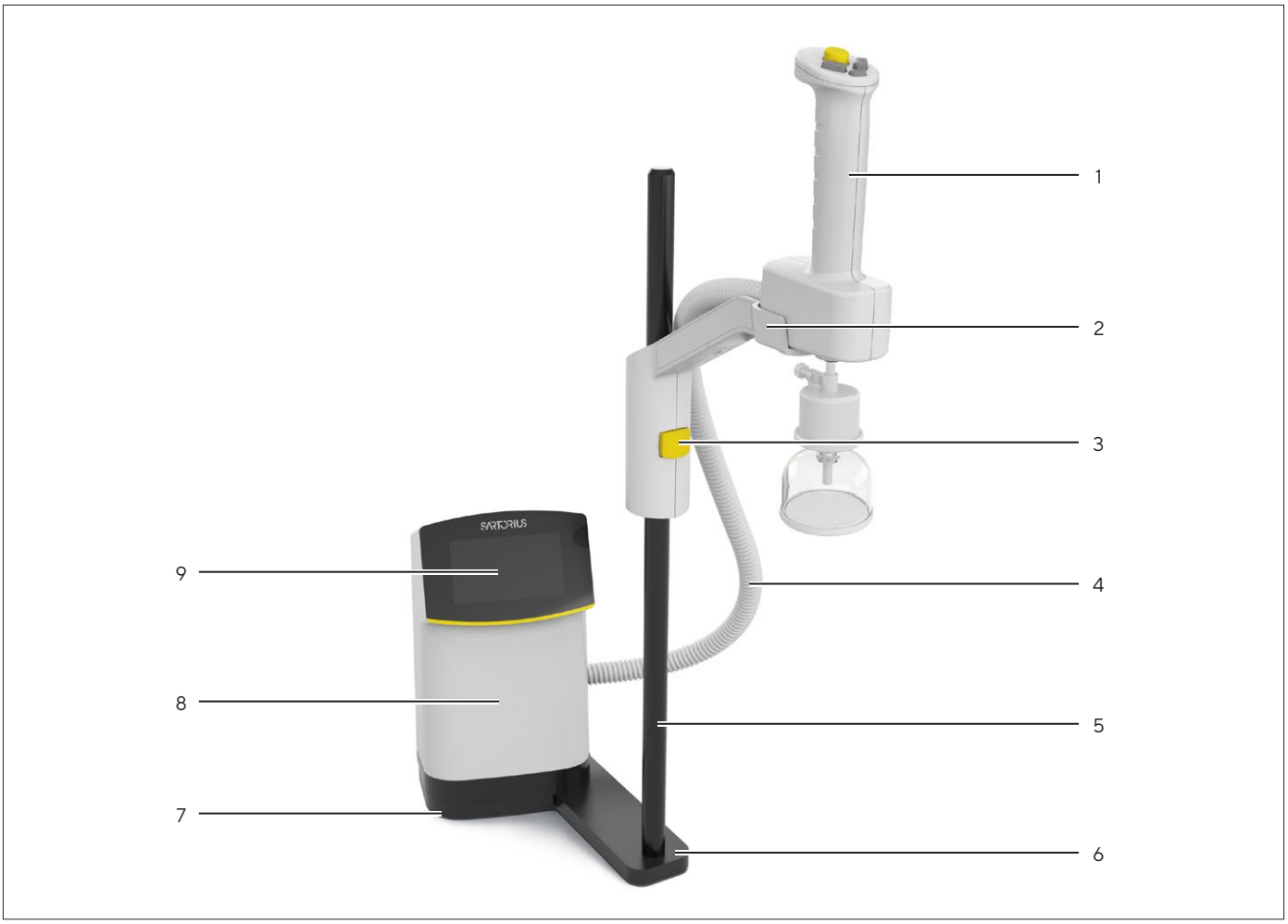


Fig. 1: Dispensing unit with stand (example)

Pos.	Name	Description
1	Hand-held Part	Controls the dispensing of water.
2	Stand arm	Holds the hand-held part.
3	Adjustment button	Used to set the height for the hand-held part.
4	Protective tubing	Used to protect the water tubes and the data cable.
5	Stand support rod	Used for the height adjustment of the hand-held part.
6	Stand base	Connects the control unit with the stand support rod.
7	Base plate	
8	Control unit	– Displays information about the system operation. – Carries out system settings and work steps for the maintenance of the device via a menu.
9	Operating display	Has a touch-sensitive surface.

3.2 Hand-held Part

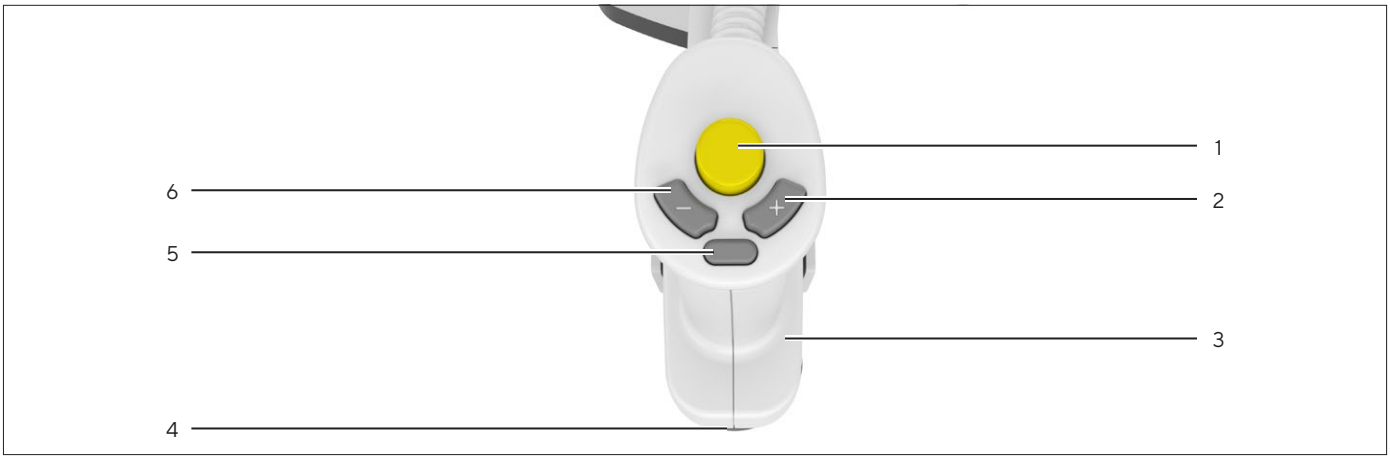


Fig. 2: Hand-held part of the dispensing unit

Pos.	Name	Description
1	[Start / stop] button	– If the key is briefly pressed: Starts or stops the dispensing. – If the button is held down: Manual dispensing. – If the button is released: Dispensing will be stopped.
2	[Plus] button	– For "Ultrapure" version only: Starts the manual dispensing at level 1. – For "Ultrapure" version only: When pressed, it increases the flow speed by one level during volume-controlled dispensing. – For "Ultrapure" version only: When held down, it increases the flow speed level by level. – Changes the menu selection for pre-defined levels of volume-controlled dispensing.
3	Hand-held part	Has an integrated touch sensor.
4	Water outlet	Used for the connection of the final filter.
5	[Volume] button	Starts the selection for the volume-controlled dispensing in pre-defined levels.
6	[Minus] button	– For "Ultrapure" version only: When pressed, it decreases the flow speed by one level during volume-controlled dispensing. – For "Ultrapure" version only: When held down, it decreases the flow speed level by level. – Changes the menu selection for pre-defined levels of volume-controlled dispensing.

3.3 Water Connections and Clips

Fig. 3: Water connections and clip (example)

Pos.	Name	Description
1	Mounting hole	Clips are attached.
2	“Outlet” connection	For “Ultrapure” version only: Used to connect the outlet tube to an Arium® water treatment device or to the connection of another Arium® Smart Station.
3	“Inlet” connection	– Used to connect the feed water tube and connects this device with an Arium® water treatment device or Arium® Bagtank. – For serial connection of several dispensing units: The feed water tube connects the device with an upstream Arium® “Ultrapure” Smart Station.
4	Clip	Secures the protective tubing to the device.
5	“Red” hand-held part connection	For “Ultrapure” version only: Used to connect the outlet tube from the hand-held part.
6	“Blue” hand-held part connection	For connecting the feed water tube to the hand-held part.

3.4 Electrical Connections

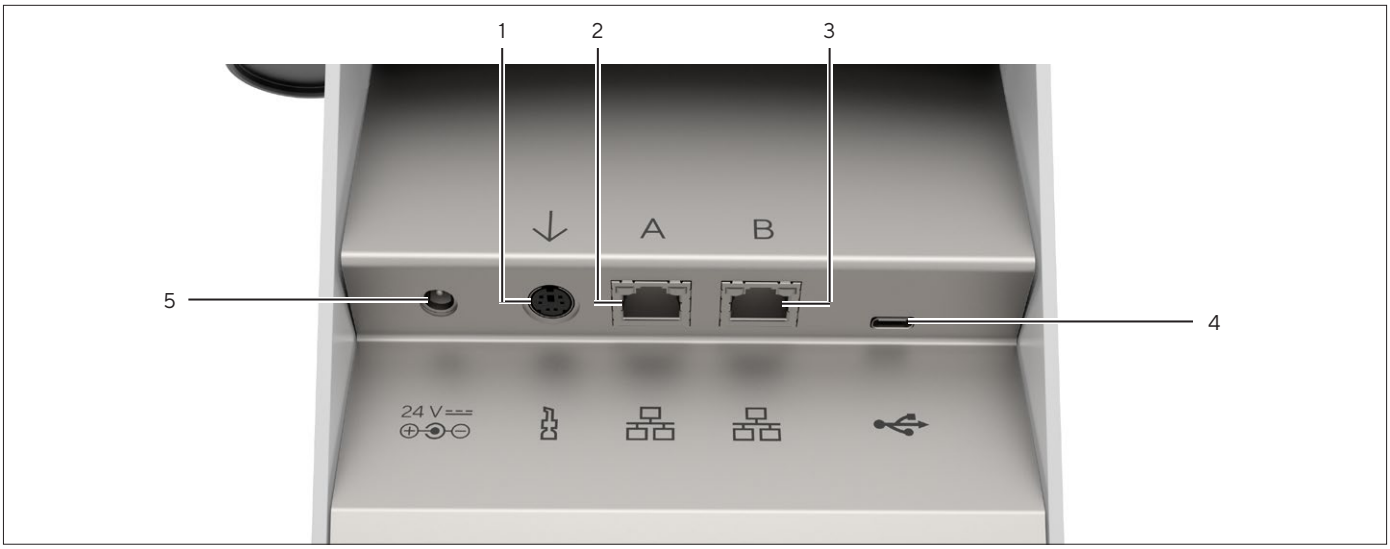


Fig. 4: Electrical connections (example)

Pos.	Name	Description
1	Hand-held part connection	Used to connect the hand-held part to the control unit.
2	Ethernet “A”	Used to connect an Arium® water treatment device or another Arium® Smart Station.
3	Ethernet “B”	Used to connect an Arium® water treatment device or another Arium® Smart Station.
4	USB-C	Used to connect accessories, e.g., printers or USB mass storage devices (for maximum storage size, see Chapter “14.7.2 Specifications for the USB-C Interface”, page 71).
5	Power supply	Used to connect the power supply unit.

3.5 Models H2O-ARST-UP-B, H2O-ARST-P-B: Wall Brackets for the Dispensing Unit

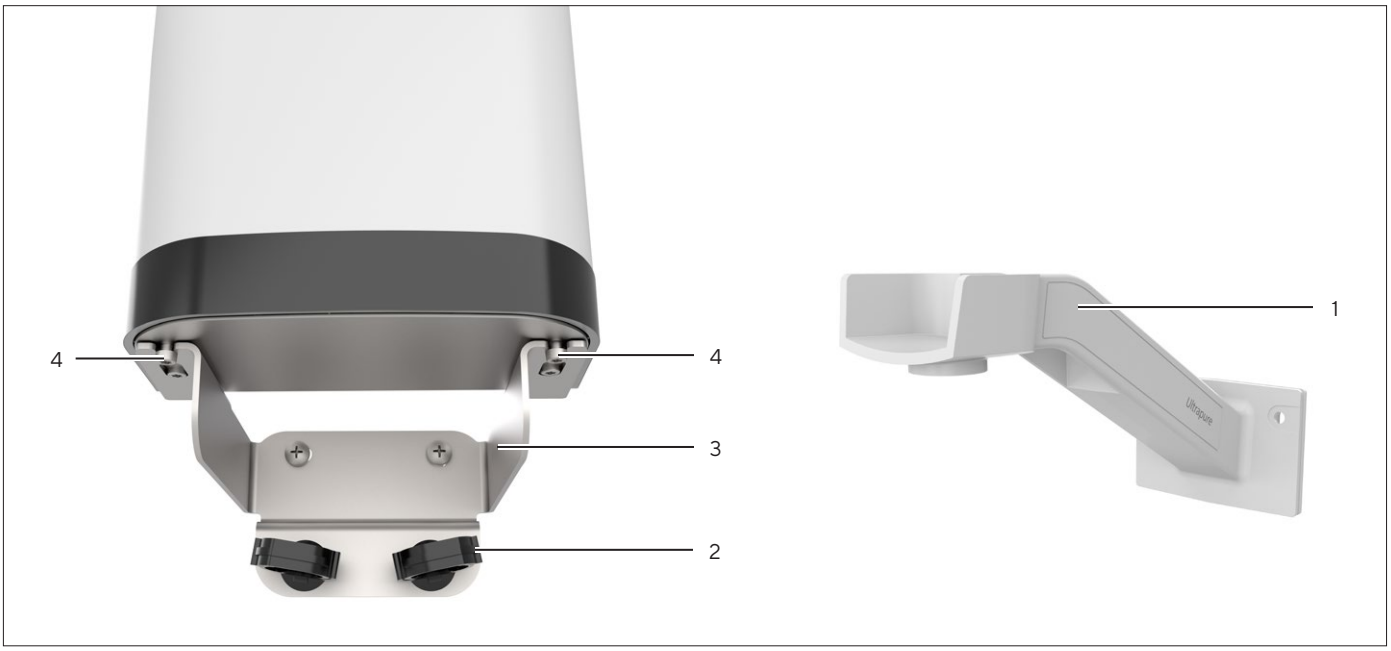


Fig. 5: Wall brackets for the dispensing unit (example)

Pos.	Name	Description
1	Wall bracket for hand-held part	Used to hold the hand-held part.
2	Clip	Secures the protective tubing.
3	Wall bracket for the control unit	Used to hold the control unit.
4	Fixing screw	Secures the control unit to the wall bracket.

3.6 Power Supply Unit and Wall Bracket

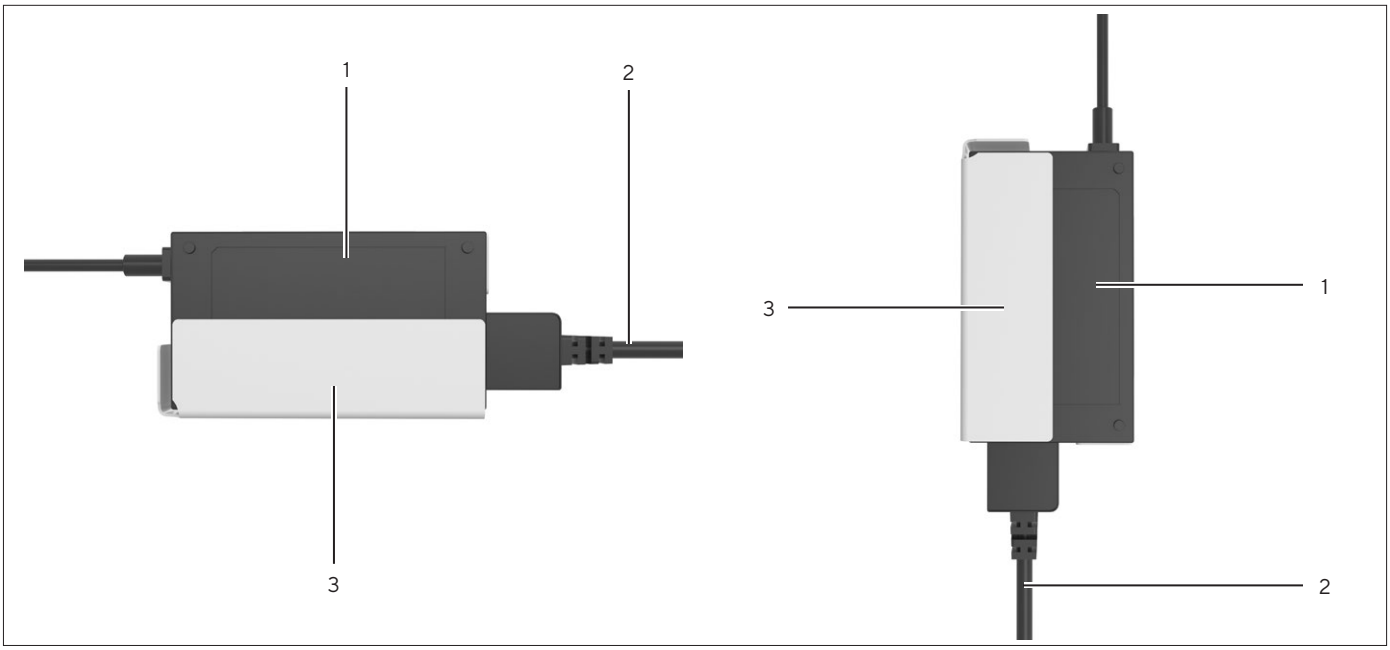


Fig. 6: Power supply unit and wall bracket (example)

Pos.	Name	Description
1	Power supply unit	Used to supply power to the device.
2	Power supply cable	Has a country-specific plug type.
3	Wall bracket for power supply unit	Secures the power supply unit horizontally or vertically to a wall.

3.7 “Ultrapure” Version: Serial Connection of Several Dispensing Units

3.7.1 System Setup

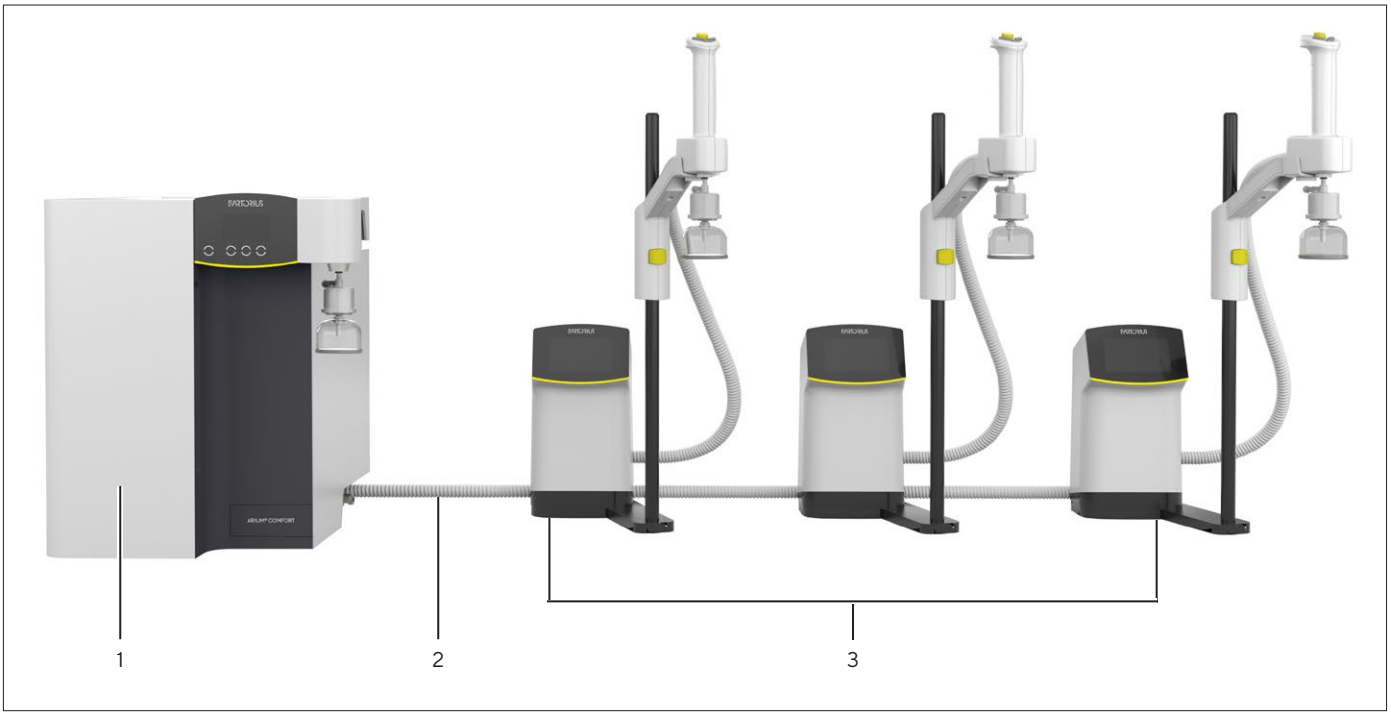


Fig. 7: System setup with up to three dispensing units (example)

Pos.	Name	Description
1	Arium® water treatment device	Supplies the ultrapure water to the dispensing units.
2	Protective tubing	Contains the water tubes and the Ethernet system cable.
3	Dispensing unit	Used for the removal and dispensing of ultrapure water.

3.8 Symbols on the Device

Symbol	Meaning
	Electrical voltage: Risk of injury due to live parts. Only electricians may have access to and work on these parts.

4 Operating Design

4.1 “Ultrapure” Version: Operating Elements in Dispensing Mode

In dispensing mode, the display shows information from the connected Arium® water treatment device, as well as the buttons relevant for dispensing.

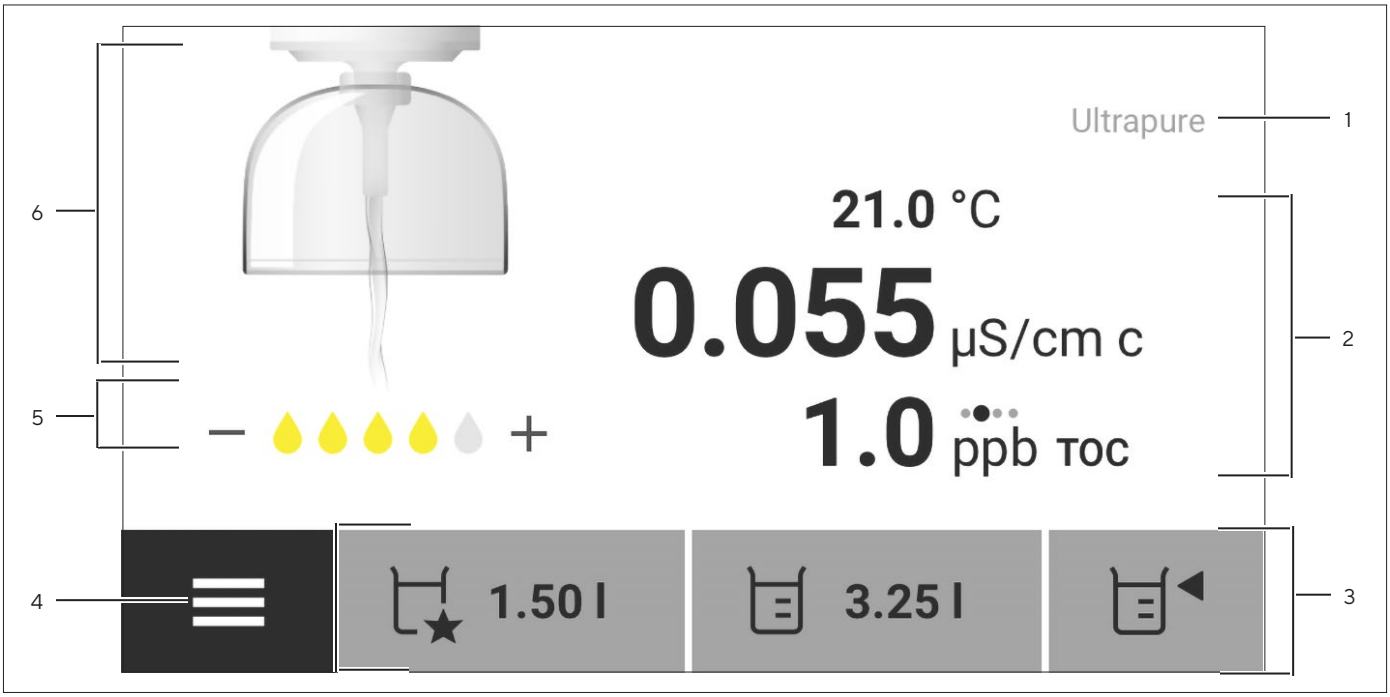


Fig. 8: Dispensing mode of the dispensing unit for ultrapure water (schematic representation)

Pos.	Name	Description

1	Status bar	– Indicates the water type, e.g., ultrapure.
		– If there are messages present:
		  – Indicates that messages have been saved.
		  – Opens a message or the message list.

2	Measurement display	Can display the following information:
		– Current temperature (setting-dependent)
		– Current conductivity
		– Current TOC value (if available):
		  – Value shown in black: current measured value
		  – Value shown in gray: previous measured value
		– Moving dots over the unit: The value is being updated
		– Messages

3	Function bar	Displays available operating functions for the current display.
4	Menu	Opens the main menu.

5	Flow speed	– Indicates the level of the current flow speed using the number of colored droplets. – [-] and [+] symbols: Indicate that the flow speed can be increased or reduced using the [Plus] and [Minus] buttons on the hand-held part. – [+] and [–] symbols light gray or **not** visible: Indicates that the flow speed **cannot** be changed.
6	Flow symbol	Indicates whether water is currently being released.

4.2 “Pure” Version: Operating Elements in Dispensing Mode

In dispensing mode, the display shows information from the connected Arium® water treatment device, as well as the buttons relevant for dispensing.

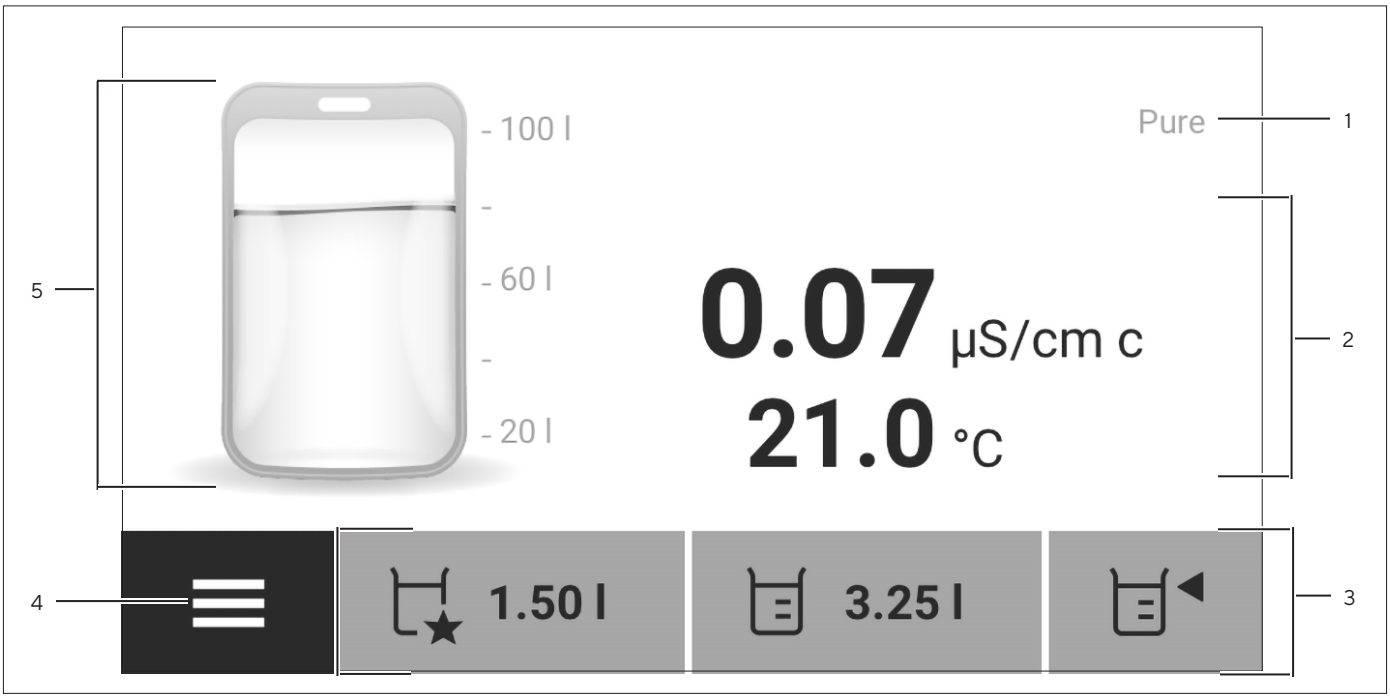


Fig. 9: Dispensing Mode of the Dispensing Unit for Pure Water (Schematic Representation)

Pos.	Name	Description

1	Status bar	– Indicates the “Pure” water type.
		– If there are messages present:
		  – Indicates that messages have been saved.
		  – Opens the message list.

2	Measurement display	Can display the following information: – Current conductivity – Current temperature (setting-dependent) – Messages – Values shown in gray are not current measured values, but values obtained during the last water production.
3	Function bar	Displays available operating functions for the current display.
4	Menu	Opens the main menu.
5	Bagtank display	Displays the tank capacity and the filling level of the Arium® Bagtank.

4.3 Menu

4.3.1 “User” Role (Without PIN Protection)

All system settings and work steps for dispensing can be carried out in the menu.

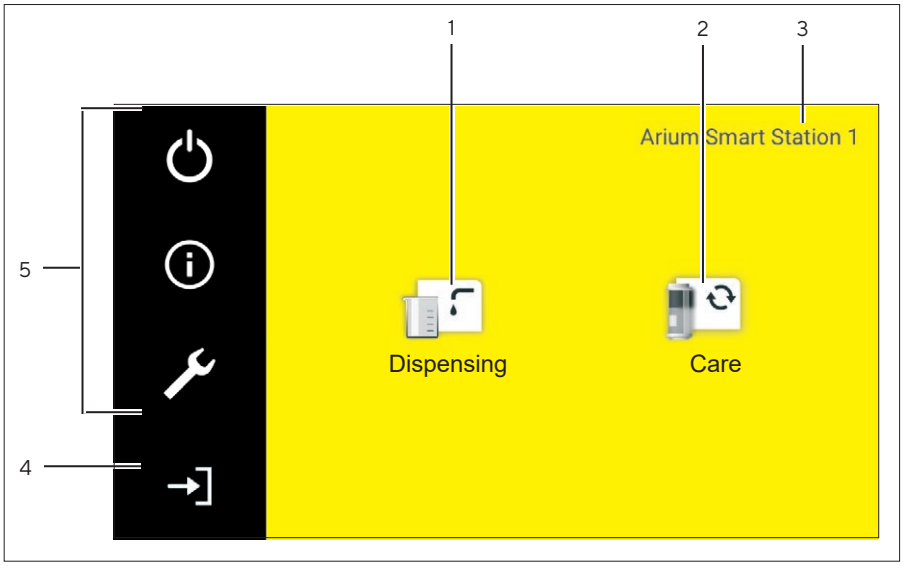


Fig. 10: Menu for the “User” role (example)

Pos.	Symbol	Name	Description
1		Dispensing	Opens the dispensing mode.
2		Care	Opens the “Care” menu.
3		Identifier	If more than one dispensing unit is connected: Displays the name and the ID number.
4		Log in role	Changes the role from “User” to “Administrator” or “Service”.
5		Function bar	Displays available operating functions for the current display.

4.3.2 “Administrator” Role

All system settings and work steps for the maintenance of the device can be carried out in the menu.

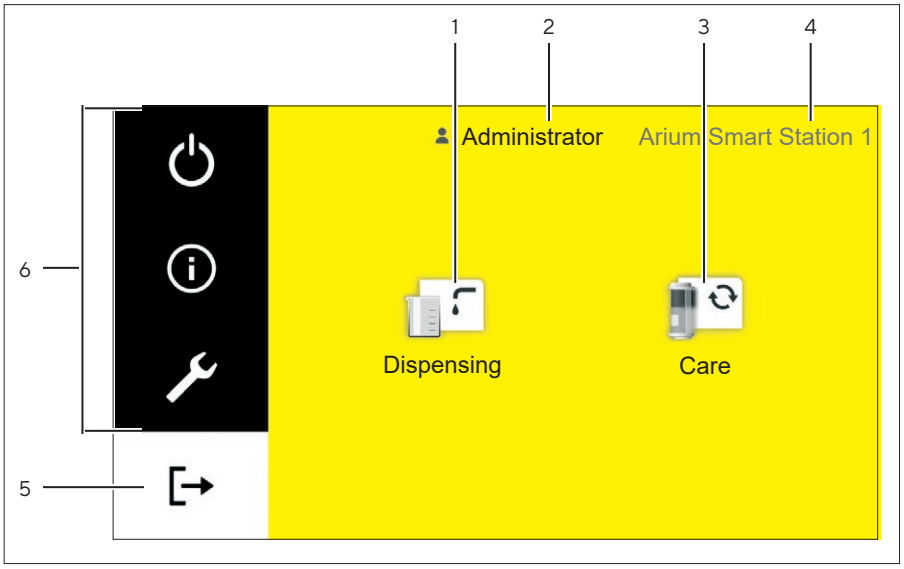


Fig. 11: Menu for the “Administrator” role (example)

Pos.	Symbol	Name	Description
1		Dispensing	Opens the dispensing mode.
2		User role	If available: Displays the name of the active user profile.
3		Care	Opens the “Care” menu.
4		Identifier	If more than one dispensing unit is connected: Displays the name and the ID number.
5		Log out a role	Logs out the currently logged-in Administrator or Service. Returns to the “User” role.
6		Function bar	Displays available operating functions for the current display.

4.4 Messages in Dispensing Mode

If several messages are active, the message list can be called up in the dispensing mode (see Chapter “4.5 Message List”, page 22). The message list only appears when several messages are active and at least one message **cannot** be displayed in the operating display for the conductivity or temperature of the water. If only one message is active, the message is opened directly instead of the message list.

If an error message is active, **no** dispensing is possible.

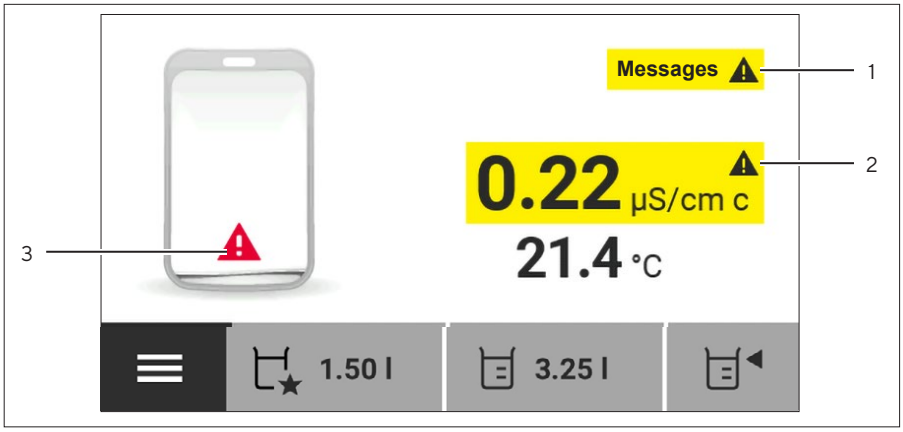


Fig. 12: Message display in the dispensing mode (example)

Pos.	Symbol	Name	Description
1	Messages	Message list	Indicates that error messages have been saved and opens the message list.
	Messages		Indicates that warning messages have been saved and opens the message list.
	Messages		Indicates that status messages have been saved and opens the message list.
2	Messages	Conductivity or temperature message	Indicates an error or warning message relating to the water conductivity or water temperature.
3		Arium® Bagtank fill level message	Indicates that the Arium® Bagtank is empty. **No** water dispensing is possible.
			Indicates that only a little water can still be dispensed.

4.5 Message List

All active messages can be viewed in the message list. The cause of the message does not necessarily lie with the dispensing unit, but usually with the connected Arium® water treatment device.

The messages in the message list are sorted according to priority. Error messages appear first in the list. Within the same priority level, the messages are sorted according to date and time.

Messages **cannot** be deleted manually. They remain in the message list and will be displayed on the operating display until their cause has been corrected. The device detects if the cause of a message has been corrected and automatically deletes the message from the message list.

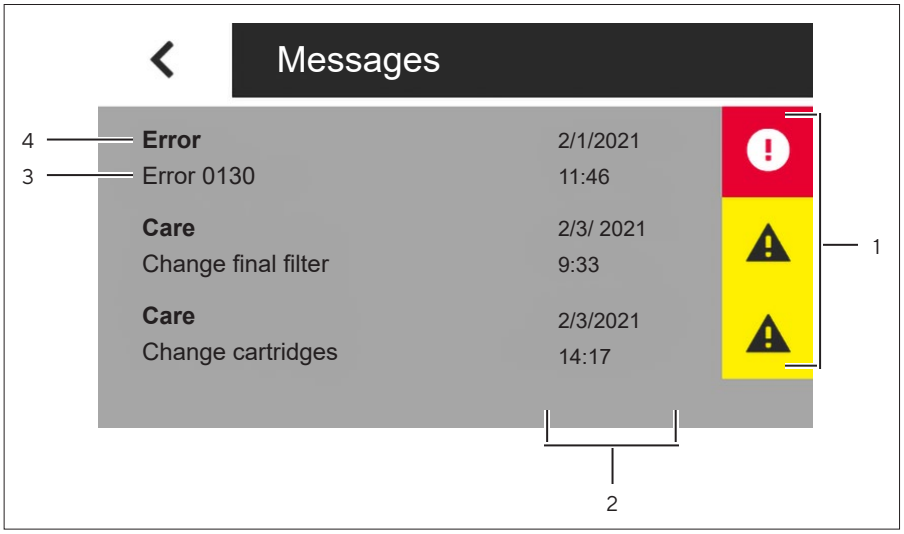


Fig. 13: Message list (example)

Pos.	Symbol	Name	Description
1		Message symbol	Displays an error message.
			Displays a warning message.
			Displays a status message (info).
2		Occurrence of the message	Displays the date and time when the message occurred.
3		Brief description	Displays the error number or a short description of the message.
4		Message type	– Error: Displays and opens an error message. – Warning category, e.g. care: Displays and opens a warning message. – Service: Displays and opens a status message.

4.6 Numeric Keypad

The numeric keypad is used to enter a dispensing volume or various system settings.

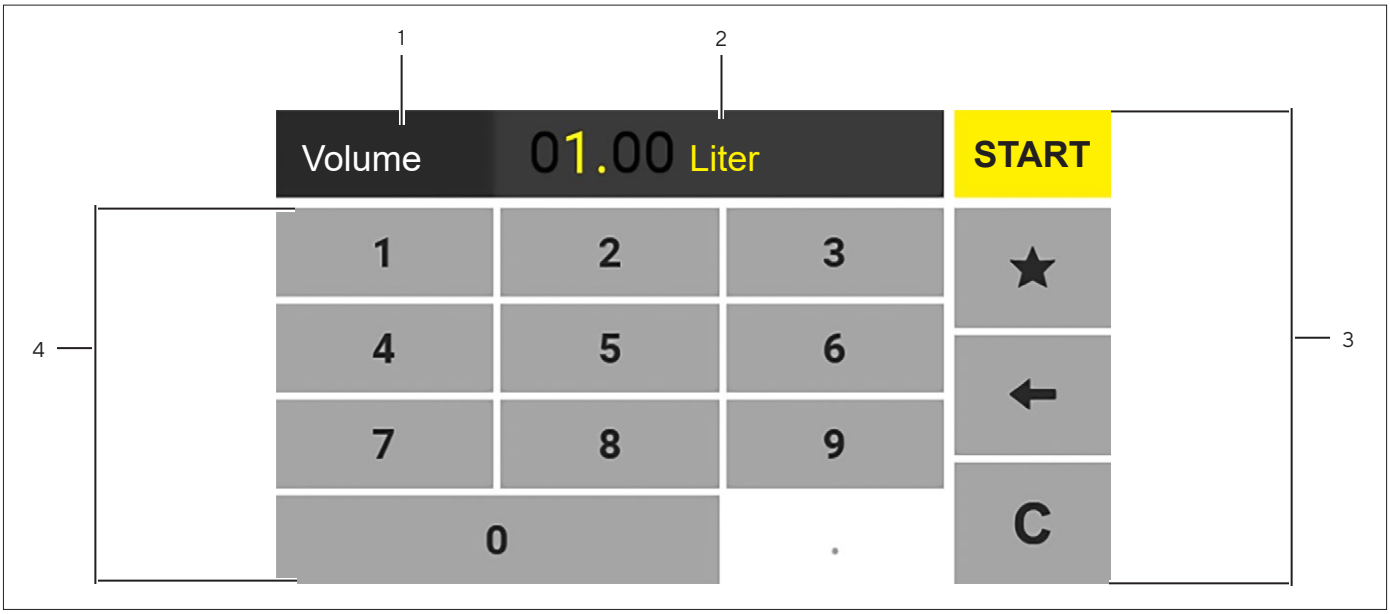


Fig. 14: Numeric keypad (example: entering the volume)

Pos.	Name	Description
1	Name of the dialog box	Displays the name of the current dialog box.
2	Numerical value	Displays the currently entered numeric value.
3	Function bar	Displays available operating functions for the current display.
4	Numeric Keypad	– Transfers numerical values to the dialog box. – Grayed-out numbers indicate that the function **cannot** currently be executed.

4.7 Status Display of the Buttons

Symbol	Name	Description
START	Predominant button	– Indicates that the function cannot be executed as the next logical step. – The button is color-highlighted.
3.25 l	Secondary button	– Indicates that the function can be executed. – The button is highlighted gray.
	Inactive button	– Indicates that the function currently **cannot** be executed. – The symbol is grayed out.

4.8 Buttons in the Operating Display

4.8.1 Buttons for Operation and Navigation in Displays

Symbol	Name	Description
	[Menu] button	Opens the main menu.
	[Standby] button	– In standby mode: Switches the device on. – In switched-on state: Switches the device into standby mode.
	[Volume input] button	Opens the display for inputting a dispensing volume.
	[Volume-controlled dispensing] button	Starts the volume-controlled dispensing with the previously provided volume.
	[Favorite] button	– Starts the volume-controlled dispensing with a pre-defined volume.
		– Adopts the entered digit sequence as the preferred dispensing volume.
	[Cancel] button	– Ends the volume-controlled dispensing. – Cancels a drain, e.g., venting – Closes a display, e.g. keyboard, without entry
START	[START] button	Starts the volume-controlled dispensing with the entered volume.
	[Back] button	Returns to the previous display.
	[Next] button	Opens the next task.
	[Setup] button	Opens the “Settings” menu.
	[Info] button	Opens a display with additional information about the current menu.
	[Role login] button	Changes the role from “User” to “Administrator” or “Service”.
	[Role logout] button	– Logs out the currently logged-in Administrator or Service. – Returns to the “User” role.

4.8.2 Buttons for Editing or Managing Entries

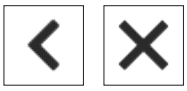
Symbol	Name	Description
✓	[Save] button	– Saves a selection or entry. – Opens a previously selected menu item
OK	[OK] button	Confirms the current display and initializes the next step.
• • •	[More] button	Displays additional functions and navigation options in a display.
←	[Correction] button	Deletes the last digit entered.
C	[Delete] buttons	Deletes all digits entered.

4.9 Navigating Menus

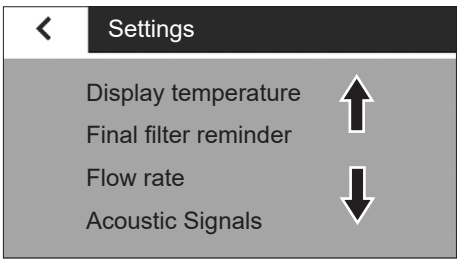
Procedure

▶ To open a menu: Tap on the desired menu button in the function bar or on a symbol.
▷ The menu will open.
▷ The name of the open menu is displayed in the navigation bar.

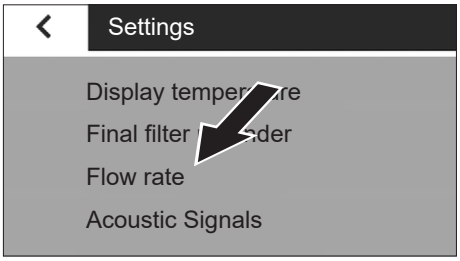
▶ To return to the main menu from other displays: Press the [Menu] button or press the [Back] button (multiple times) until the main menu is displayed.



▶ To exit a display: Press the [Back] or [Cancel] button.



▶ To scroll: Slowly swipe the touch screen up or down with your finger.
▷ The menu entries move in the corresponding direction.
▷ During scrolling, a gray scrollbar is displayed on the right for orientation.



▶ To select a menu item: Press the desired menu item.

▶ To select a value in a list:
  ▶ Scroll to the desired value in the display. In order to do so, swipe the display upwards or downwards.
  ▶ Press the desired value.
  ▶ To confirm the selection: Press the [Save] button.

▷ The selected value is saved and the list closes.

4.10 Menu Structure

Level 1	Level 2	Level 3	Description
Standby			– Starts standby mode. – Activates a dispensing unit from standby mode.
Information	Device information	Arium® water treatment device & Smart Station	Displays all features of the connected Arium® devices, e.g., the device description and the serial number.
	Measured values		– Displays the current water quality of the system. – Displays the dispensed volume.
	Reminders		Displays the data for the next required replacement of all consumables in the entire system.
	Service information	Service contact	Displays the responsible contact at Sartorius Service.
		Next maintenance	Displays the date for the next scheduled maintenance.
Settings	Display temperature		If the conductivity value is compensated: Activates the water temperature display.
	Final filter reminder		– Activates or deactivates the reminder for the next required final filter replacement. – Allows for a selection of final filter types.
	Flow rate	Reset the volume of the water dispensed	For “Pure” version only: Resets the volume counter.
		Flow sensor adjustment	Starts the adjustment of the flow sensor.
		Flow speed adjustment	For “Ultrapure” version only: Starts the adjustment of the flow speed.
	Acoustic signals	Display button signals	Activates | deactivates acoustic signals when pressing a button.
		Key signals on hand-held	Activates | deactivates acoustic signals when pressing the hand-held part keys [Plus], [Minus] and [Volume].
		Warning	Activates | deactivates acoustic signals for warnings.
		Error	Activates | deactivates acoustic signals for error messages.
		Confirmation	Activates | deactivates acoustic signals for expired rinse times.

Level 1	Level 2	Level 3	Description
Settings	Display brightness		Changes the brightness of the operating display.
	Reset settings		Resets the dispensing unit to the default settings, e.g., temperature display.
Role management	Admin		Opens the defined role for the administrator or service.
	Service		
Dispensing			Opens the dispensing mode.
Care	Replace final filter		– Starts the wizard for replacing a final filter.
	Perform venting		– Starts the wizard for the venting process. – Fills and rinses the device during a venting process.
	Perform depressurization		For “Pure” version only: Starts reducing the pressure for the dispensing unit.

4.11 Parameter List

4.11.1 Parameters in the “Information” Menu

Parameter	Setting Values	Explanation
Device information	Arium® water treatment device	Displays the following information: – Device description – Model code – Serial number – Software versions – MAC addresses
	Arium® Smart Station n	Displays the following information: – Device description – Model code – Serial number – Software versions – MAC addresses
Measured values	“Ultrapure” version	Displays the conductivity, water temperature, and the TOC value.
	“Pure” version	Displays the conductivity and water temperature.
	Dispensed water	For “Ultrapure” version only: Displays the volume of water dispensed by the dispensing unit of the connected Arium® water treatment device.

Parameter	Setting Values	Explanation
Reminders		Displays the data for the next required replacement of all consumables in the entire system.
Service information	Service contact	Displays the responsible contact at Sartorius Service.
	Next maintenance	If a service interval is activated: Displays the date for the next scheduled maintenance (depending on the setting on the Arium® water treatment device).

4.11.2 Parameters in the "Settings | Display Temperature" Menu

Parameter	Setting Values	Explanation
Display temperature	On	– Displays the water temperature in the operating display. – Can only be selected if the water quality on the Arium® water treatment device is displayed compensated to 25°C.
	Off*	Deactivates the water temperature display.
* Default setting		

4.11.3 Parameters in the "Settings | Final Filter Reminder" Menu

Parameter	Setting Values	Explanation
Reminder	Activated*	Activates the reminder for replacing the final filter.
	Deactivated	Deactivates the reminder for replacing the final filter.
Filter type	Sterile filter*	Is used to select the final filter type.
	Ultrafilter	
Interval [months]	Entry of the interval in months	Defines the time interval for the reminder. Is set to one month by default.
* Default setting		

4.11.4 Parameters in the "Settings | Flow Rate" Menu

Parameter	Setting Values	Explanation
Flow rate	Reset the volume of the water dispensed	For "Pure" version only: Sets the counter back to zero.
	Flow sensor adjustment	Starts the adjustment of the flow sensor.
	Flow speed adjustment	For "Ultrapure" version only: Starts the adjustment of the flow speed.

4.11.5 Parameters in the "Settings | Acoustic Signals" Menu

Parameter	Setting Values	Explanation
Display button signals	On	Activates acoustic signals when pressing a button.
	Off*	Deactivates acoustic signals when pressing a button.
Key signals on hand-held	On*	Activates acoustic signals when pressing the hand-held part keys [Plus], [Minus] and [Volume].
	Off	Deactivates acoustic signals when pressing the hand-held part keys [Plus], [Minus] and [Volume].
Warning	On*	Activates acoustic signals for warnings.
	Off	Deactivates acoustic signals for warnings.
Error	On*	Activates acoustic signals for error messages.
	Off	Deactivates acoustic signals for error messages.
Confirmation	On*	Activates acoustic signals for expired rinse times.
	Off	Deactivates acoustic signals for expired rinse times.

* Default setting

4.11.6 Parameters in the "Settings | Display Brightness" Menu

Parameter	Setting Values	Explanation
Display brightness	Bright*	Sets the display brightness to 100%.
	Dark	Sets the display brightness to 60%.

* Default setting

4.11.7 Parameters in the "Settings | Reset Settings" Menu

Parameter	Setting Values	Explanation
Reset settings	Yes, reset	Resets the dispensing unit to the default settings.
	No	Cancels the resetting of the settings.

4.11.8 Parameters in the “Role Management” Menu

Parameter	Setting Values	Explanation
Roles	Administrator Service	– Opens the defined role for the administrator and service. – Assigns appropriate rights for operating the device to each role. – The device functions that can be used depend on the rights of the user role. – Displays various setting options depending on the setting (role distribution: Admin or Service). – The “Admin” role can only be selected if the PIN protection is activated on the Arium® water treatment device (see respective Arium® water treatment device Operating Instructions).

4.11.9 Parameters in the “Care” Menu

Parameter	Setting Values	Explanation
Replace final filter	None, guided drain	Starts the wizard for replacing a final filter.
Perform venting	None, guided drain	– Starts the wizard for the venting process. – Fills and rinses the device during a venting process.
Perform depressurization	None, guided drain	“Pure” version: Starts reducing the pressure in the device.
* Default setting		

4.11.10 Adopting Parameters from the Arium® Water Treatment Device

If the device has gone through the commissioning mode, the following parameters are adopted directly from the connected Arium® water treatment device:

- Language for the operating display
- Time and date
- Service information
- Setting of the measured value display

5 Installation

5.1 Scope of Delivery

Item	Quantity
Control unit	1
For “Ultrapure” version only: Hand-held part with dispense tube including inlet and outlet water tube, ¼” outer diameter, data cable	1
For “Pure” version only: Hand-held part with dispense tube including inlet water tube, ¼” outer diameter, data cable	1
For “Ultrapure” version only: Connection tubing including inlet and outlet water tube, ¼” outer diameter, Ethernet system cable	1
For “Pure” version only: Connection tubing including inlet and outlet water tube, ¼” outer diameter, Ethernet system cable	1
Clips	3
Only for benchtop version models: Pre-assembled stand base with stand support rod	1
Only for benchtop version models: Stand arm	1
Only for dispensing unit models for wall mounting: Wall bracket for the control unit	1
Only for dispensing unit models for wall mounting: Wall bracket for the hand-held part	1
Tubing release tool	1
Power supply unit	1
Wall bracket for the power supply unit	1
Country-specific power supply cable	1
Operating Instructions	1

5.2 Selecting an Installation Site

Procedure

▶ Make sure that the following conditions are met at the installation site:

Condition	Requirements
Ambient conditions	– Suitability tested (for ambient conditions see Chapter “14.3 Ambient Conditions”, page 69).
Footprint or installation space	– Stable, even surface or vertical installation space, e.g., a sink – Sufficient space for the system (for dispensing unit space requirements, see Chapter “14.1 Dimensions and Weights”, page 68). – Sufficient load bearing capacity for the system (for weight of the dispensing unit, see Chapter “14.1 Dimensions and Weights”, page 68) – For dispensing unit with wall bracket: Select a suitable position on the wall for installation.
Access to the water treatment device	Maximum distance to the water treatment device checked (see Chapter “14.1 Dimensions and Weights”, page 68).
Feed water quality	Suitability tested (see Chapter “14.6 Device Functions”, page 70)

5.3 Unpacking and Installing the Device

⚠ CAUTION

Danger of electrical shock due to leaking water!

Water may spill when using the device. If the water comes into contact with electrical devices, this may cause electric shocks.

▶ Do **not** place the device in the immediate vicinity of electrically powered devices.

⚠ CAUTION

Danger of body parts being crushed when installing the device due to careless handling!

People could be injured if the device falls down.

▶ Lift the device by the stand support rod and the control unit at the same time.

We recommend that installation and commissioning of the device should be carried out by Sartorius Service.

Procedure

▶ Please contact Sartorius Service.

▶ We recommend keeping the original packaging in case the device needs to be returned or repaired, e.g., for repairs.

5.4 Installing the Stand Support Rod (Only for Dispensing Unit with Stand)

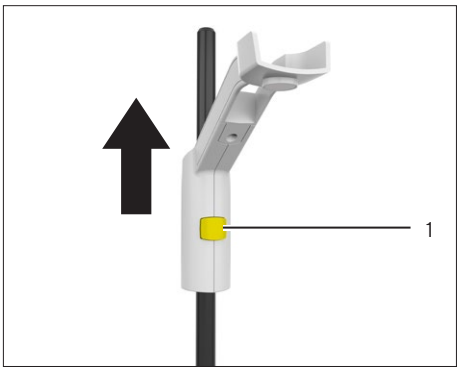
Required tools: Torx screwdriver, size TX 20 (not included in the scope of delivery)

Requirements

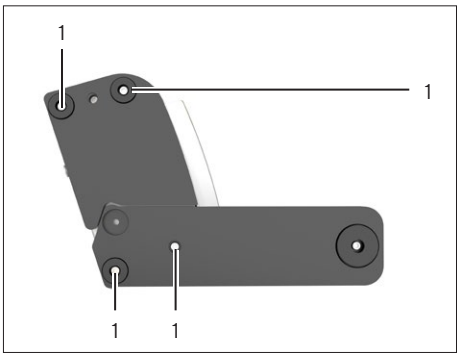
The stand support rod is installed on the right side.

Procedure

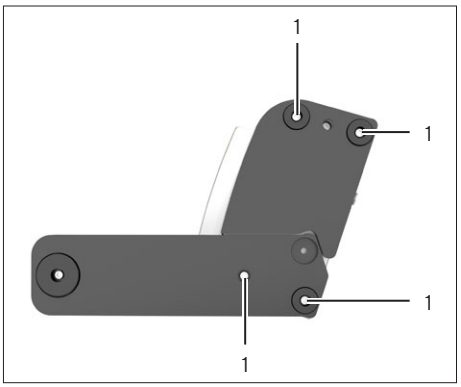
▶ Remove the hand-held part from the stand arm and place next to the device.



▶ Remove the stand arm: Hold down the adjustment key and at the same time pull the stand arm upwards off the stand support rod.



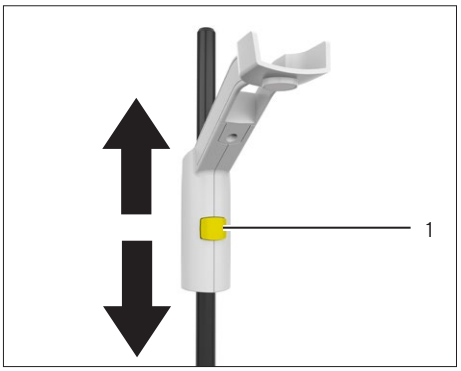
- Place the control unit on its side.
- Unscrew the four screws (1) including the three bases on the underside of the control unit.
- Remove the stand base and the base plate.



- Rotate the base plate 180° and place the stand arm on the left-hand side of the control unit.
- Secure the base plate and the stand base using the four screws (1) including the three bases on the control unit.

5.5 Installing the Stand Arm (Only for Dispensing Unit with Stand)

Procedure



- Push the stand arm onto the stand support rod from above: Press and hold the adjustment button (1).
- Align the stand arm with the stand support rod: Hold down the adjustment button (1) and push the stand arm into the desired position on the stand support rod.

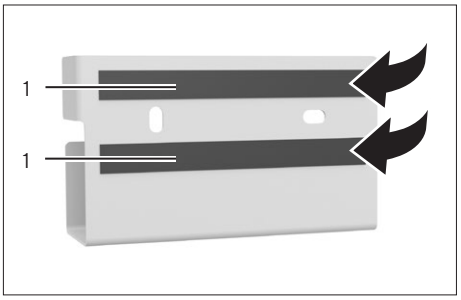
5.6 Installing the Wall Bracket for the Power Supply Unit

The wall bracket can be secured to a wall using an adhesive tape or screws.

5.6.1 Securing Wall Bracket with the Adhesive Tapes

Procedure

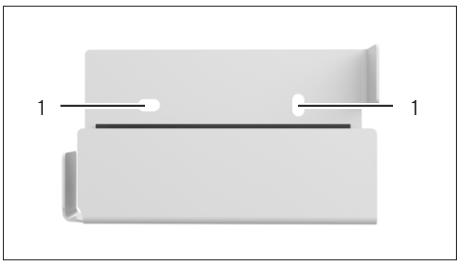
- ▶ ⚠ **CAUTION** Danger of injury if the wall bracket is not installed correctly! People could be injured if the power supply unit falls down. Fasten the wall bracket securely to the wall.
- ▶ **NOTICE** The device may be destroyed if it falls down! Fasten the wall bracket securely to the wall. Pay attention to the following when sticking to a suitable wall:
  - Clean and grease-free surface
  - Smooth surface
- ▶ Align the wall bracket horizontally or vertically before installation (for alignment, see Chapter “3.6 Power Supply Unit and Wall Bracket”, page 15).
- ▶ During adhesion, ensure that the surface is clean and grease-free.
- ▶ Remove the protective film (1) from the adhesive tape and secure the wall bracket by pressing it in the desired place on the wall.



5.6.2 Securing the Wall Bracket with Screws

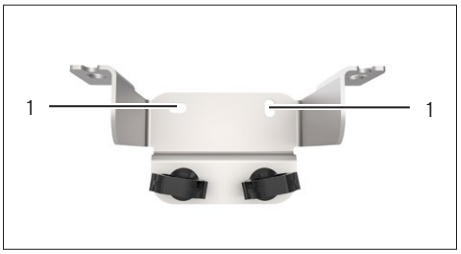
Procedure

Use the holes (1) on the wall bracket as a template for drilling the installation space.



- ▶ ⚠ **CAUTION** Danger of injury if the wall bracket is not installed correctly! People could be injured if the power supply unit falls down. Fasten the wall bracket securely to the wall.
- ▶ **NOTICE** The device may be destroyed if it falls down! Fasten the wall bracket securely to the wall.
- ▶ Align the wall bracket horizontally or vertically before installation (for alignment, see Chapter “3.6 Power Supply Unit and Wall Bracket”, page 15)
- ▶ Secure the wall bracket to the wall using suitable screws and dowels.

5.7 Dispensing Unit with Wall Bracket: Installing Wall Bracket for the Control Unit



Procedure

- ▶ ⚠ **CAUTION** Danger of injury if the wall bracket is not installed correctly! People could be injured if the device falls down. Fasten the wall bracket securely to the wall.
- ▶ **NOTICE** The device may be destroyed if it falls down! Fasten the wall bracket securely to the wall.

The holes (1) on the wall bracket can be used as a template for drilling the installation space.

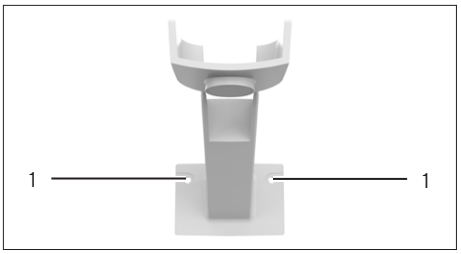
- ▶ Secure the wall bracket to the wall using suitable screws and dowels.

5.8 Dispensing Unit with Wall Bracket: Securing Control Unit to the Wall Bracket

Procedure

- ▶ ⚠ **CAUTION** Danger of injury if the wall bracket is not installed correctly! People could be injured if the device falls down. Fasten the control unit securely to the wall bracket.
- ▶ **NOTICE** The device may be destroyed if it falls down! Fasten the wall bracket securely to the wall.
- ▶ Place the control unit on the wall bracket.
- ▶ Secure the control unit using the two screws (1).

5.9 Dispensing Unit with Wall Bracket: Installing the Wall Bracket for the Hand-held Part



Procedure

- ⚠ **CAUTION** Danger of injury if the wall bracket is not installed correctly! People could be injured if the device falls down. Fasten the wall bracket securely to the wall.
- **NOTICE** The device may be destroyed if it falls down! Fasten the wall bracket securely to the wall.
- Use the holes (1) on the wall bracket as a template for drilling the installation space.
- Secure the wall bracket to the wall using suitable screws and dowels.

5.10 Acclimatization

NOTICE

Malfunctions caused by moisture in the device!

When a cold device is brought into a warm environment: The temperature difference can lead to condensation from humidity in the device (moisture formation).

Requirements

The device is disconnected from the power supply.

Procedure

- Allow the device to acclimatize for approx. 2 hours at the installation site.

6 Getting Started

6.1 Connecting Water Tubes

6.1.1 For “Ultrapure” Version: Establishing Serial Water Circulation System for one Dispensing Unit

⚠ CAUTION

Danger of injury due to tripping and falling over loose tubing!

- ▶ Ensure all tubing has been laid so that it does not present a tripping hazard!

NOTICE

Risk of device damage or malfunction due to unsuitable or damaged tubing!

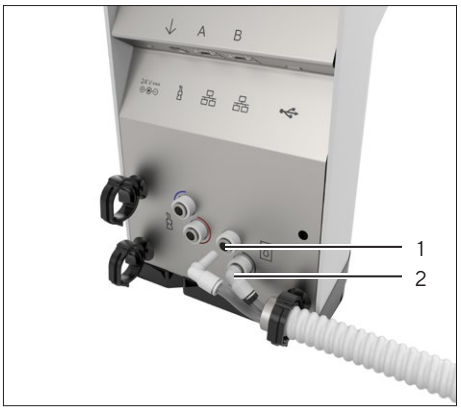
The use of tubing or accessories that are **not** approved by Sartorius may lead to leakage or damage to the device.

- ▶ Use only original Sartorius tubing.
- ▶ **Do not** bend the tubing.
- ▶ Perform a functional check after commissioning.

Requirements

The device is disconnected from the power supply.

Procedure



- ▶ Attach the water tube marked with a black safety clip to the “Inlet” feed water connection (1).
- ▶ Connect the tube end with a black safety clip to the connection for optional accessories on the Arium® water treatment device.
- ▶ Plug the unmarked water tube into the return connection (2) and connect to an Arium® water treatment device.
- ▶ Observe the water connections during pressurization.
- ▶ Check whether any leaks occur in the tubes or at the connections.
  - ▶ If required: Reconnect the tubes or replace with new ones.

6.1.2 For “Ultrapure” Version: Establishing Serial Water Circulation System for up to Three Dispensing Units

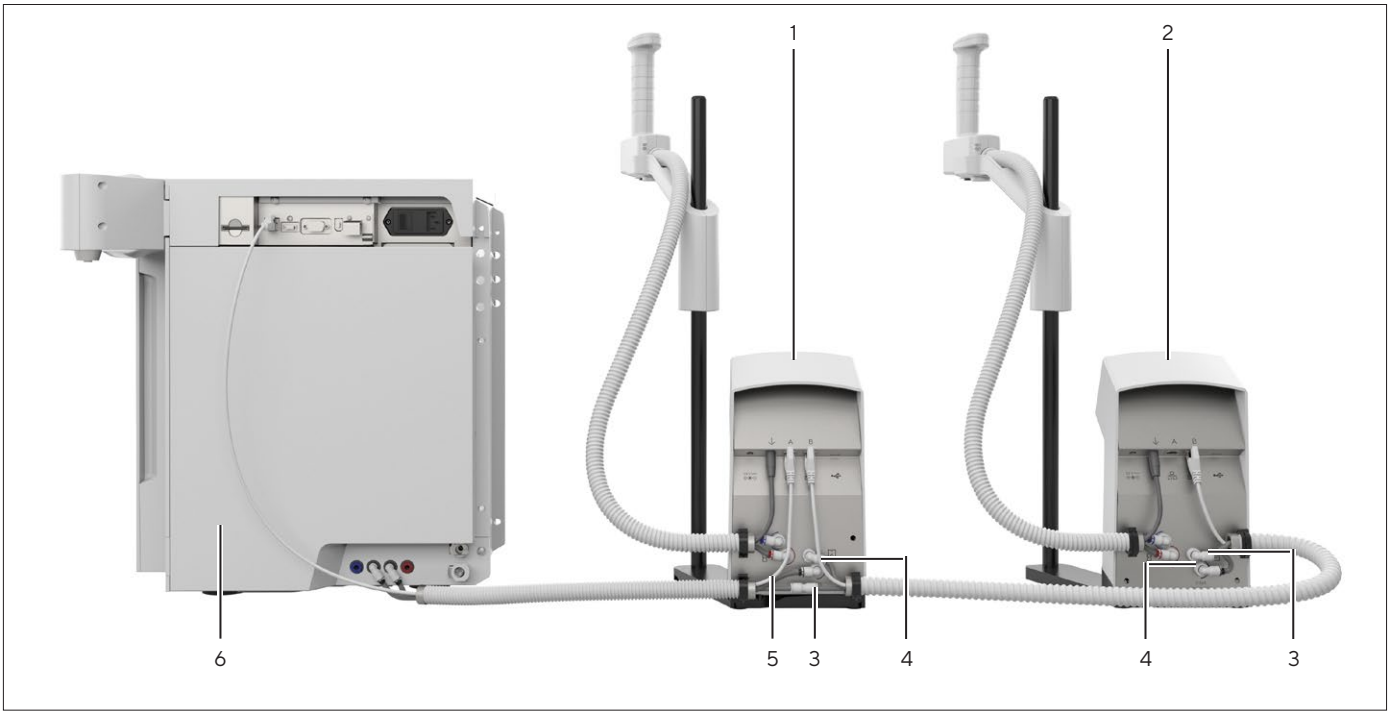


Fig. 15: Water circulation system with two dispensing units in series (example)

Pos.	Name	Description
1	Dispensing unit 1	
2	Dispensing unit 2	
3	Return tube	Connects the unmarked water outlet of dispensing unit 2, via the straight connector and the unmarked water tube on dispensing unit 1, with the return flow of the Arium® water treatment device.
4	Connection tube 2	Connects the unmarked water outlet of dispensing unit 1 with the “Inlet” connection of dispensing unit 2.
5	Connection tube 1	Connects the Arium® water treatment device with dispensing unit 1 and the “Inlet” connection via the water tube with the black marked safety clip.
6	Arium® water treatment device	Supplies the ultrapure water to the dispensing units.

We recommend that the connection of several dispensing units should be set up by Sartorius Service.

Water outlet on the Arium® water treatment device: When using the dispensing units, the water flow is reduced.

Configuring Connection Tube 1

Required tools: Tubing release tool

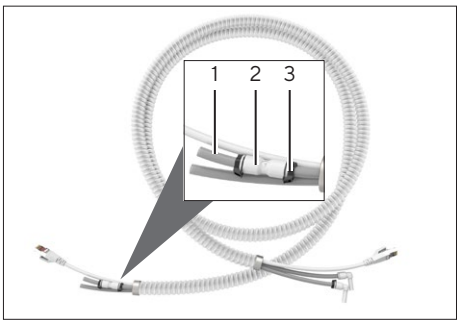
Procedure

- ▶ Loosen the unmarked angle joint (1) using the tubing release tool and remove.

Configuring Connection Tube 2

Required tools: Tubing release tool, scissors

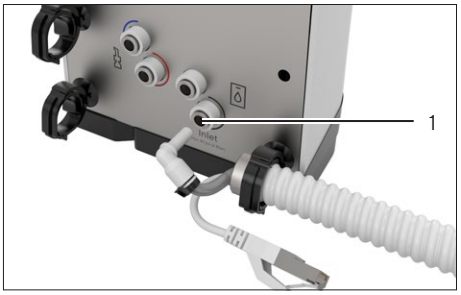
Procedure



- ▶ On the straight connector (2), cut open the two black safety clips (3) on the side using the scissors and remove from the connection.
- ▶ Loosen the short tubing section (1) from the straight connector (2) using the tubing release tool and remove.
- ▶ Loosen the straight connector (2) using the tubing release tool and remove.
- ▶ Apply the angle joint removed from connection tube 1 in the place of the straight connector.

Connecting Water Treatment Device to Dispensing Unit 1

Procedure

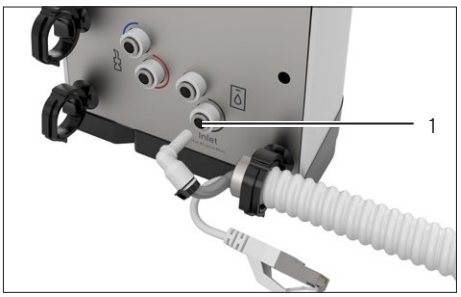


- ▶ Connect the black marked inlet water tube of connection tube 1 to the “Inlet” connection (1) of dispensing unit 1.
- ▶ Connect the tube end with a black safety clip to the black marked water connection (inlet) of the Arium® water treatment device.

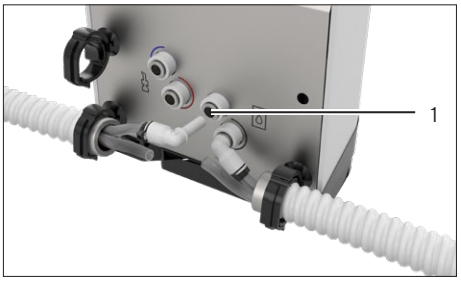
- ▶ Connect the return tube in this first protective tubing to the unmarked water connection (return) (1) of the Arium® water treatment device.

Connecting Dispensing Unit 1 to Dispensing Unit 2

Procedure

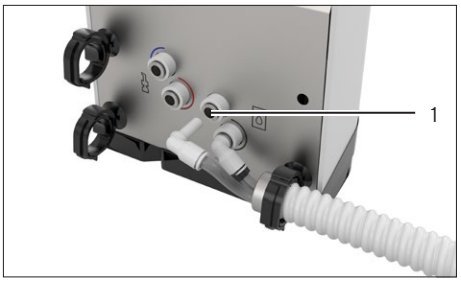


▶ Connect the black marked connection tube 2 of the second protective tubing to the black marked “Inlet” (1) connection of dispensing unit 2.



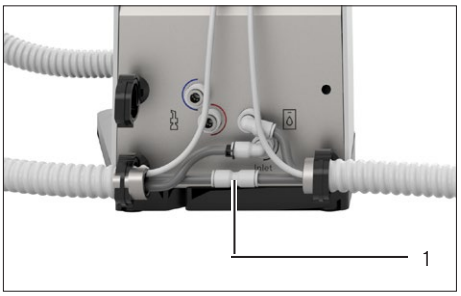
▶ Connect the other side of this tube to the unmarked water outlet (1) of dispensing unit 1.

Connecting Dispensing Unit 2 to the Water Treatment Device



▶ Connect the unmarked return tube of connection tube 2 to the unmarked connection (1) of dispensing unit 2

Dispensing Unit 1: Connecting Return Tubes



▶ Connect the return tubes in the two protective tubes with the straight connector (1).

6.1.3 For “Pure” Version: Connecting the Dispensing Unit to the Arium® Bagtank

⚠ CAUTION

Danger of injury due to tripping and falling over loose tubing!

- ▶ Ensure all tubing has been laid so that it does not present a tripping hazard!

NOTICE

Risk of device damage or malfunction due to unsuitable or damaged tubing!

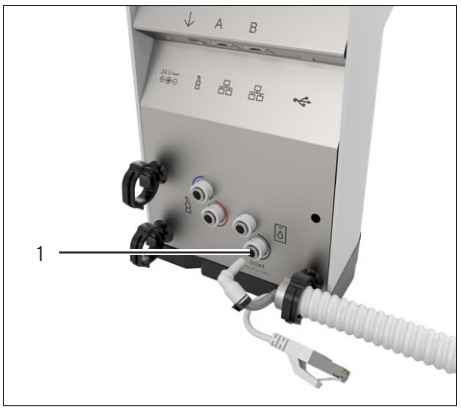
The use of tubing or accessories that are **not** approved by Sartorius may lead to leakage or damage to the device.

- ▶ Use only original Sartorius tubing.
- ▶ **Do not** bend the tubing.
- ▶ Perform a functional check after commissioning.

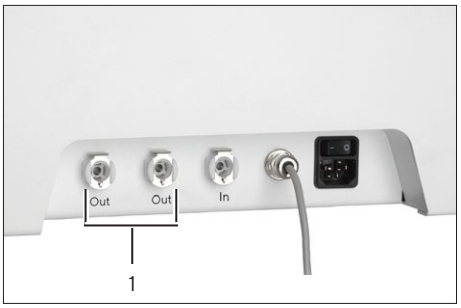
Requirements

The device is disconnected from the power supply.

Procedure

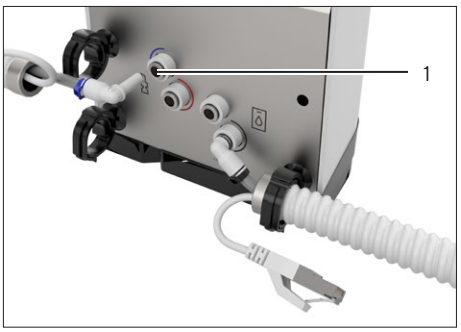


- ▶ Attach the water tube marked with a black safety clip to the “Inlet” feed water connection (1).



- ▶ Connect the tube end with a black safety clip to the “Out” water connection (1) on the Arium® Bagtank.
- ▶ Observe the water connections during pressurization.
- ▶ Check whether any leaks occur in the tubes or at the connections.
  - ▶ If required: Reconnect the tubes or replace with new ones.

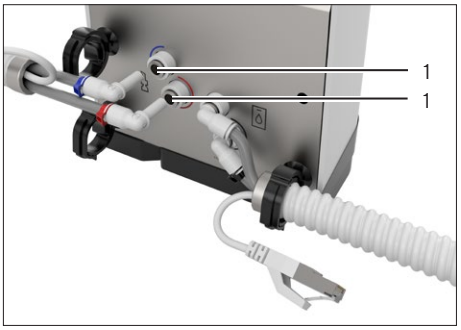
6.1.4 For “Pure” Version: Connecting Dispense Tube of the Hand-held Part



Procedure

▶ Connect the blue marked inlet water tube of the hand-held part to the identically marked connector (1).

6.1.5 For “Ultrapure” Version: Connecting Dispense Tubes of the Hand-held Part



Procedure

▶ Connect the colored marked inlet and outlet water tubes of the hand-held part to the identically marked connectors (1).

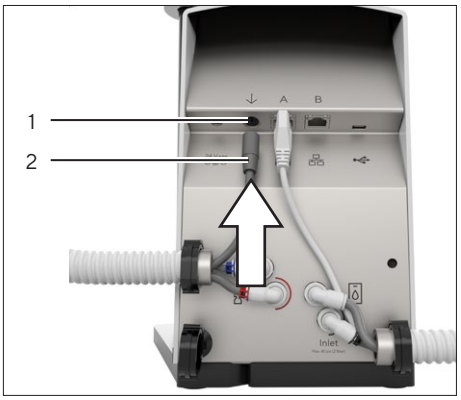
6.1.6 Leak Test

Procedure

▶ **NOTICE** Water leakage in tubes or tube connections! If the tube is deformed or is not inserted deep enough: Water may leak out. The integrated dispensing valve opens when there is excess pressure (for values for a necessary test, see Chapter “14.6 Device Functions”, page 70). After commissioning, check the tube connections for tightness of the external water connections.

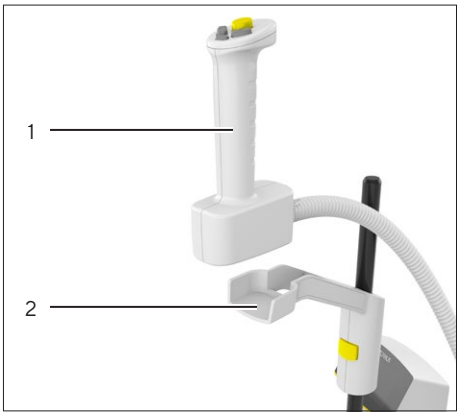
6.1.7 Connecting the Hand-held Part

Procedure



▶ Connect the hand-held part data cable (2) to the connector (1) on the control unit.

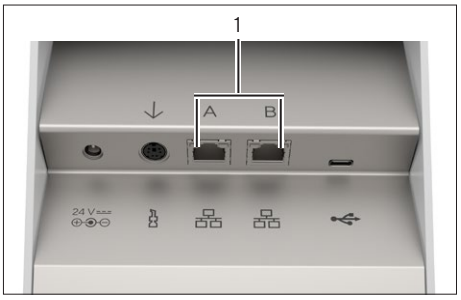
6.1.8 Installing the Hand-held Part



Procedure

▶ Place the hand-held part (1) into the stand arm (2) or the wall bracket.
▷ The hand-held part (1) is held in the stand arm or the wall bracket magnetically.

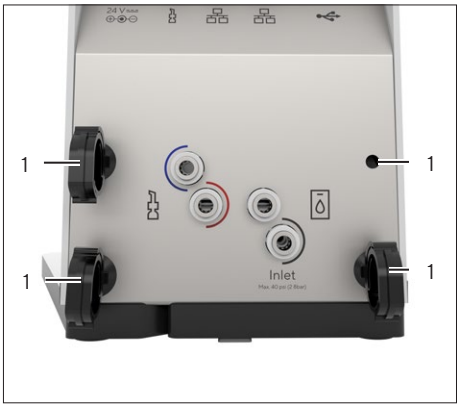
6.1.9 Connecting the Ethernet System Cable



Procedure

▶ Connect the Ethernet system cable to one of the two connectors (1) on the dispensing unit.

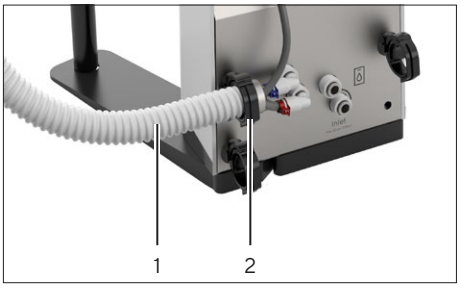
6.1.10 Inserting Clips



Procedure

▶ In order to secure the protective tubing to the device: Insert the clips into the desired mounting holes (1).

6.1.11 Securing Protective Tubing



Procedure

▶ Secure the protective tubing (1) in the clip (2) by applying pressure.
▷ The clip closes, engages, and secures the protective tubing.

6.2 Connecting the Power Supply Unit

⚠ WARNING

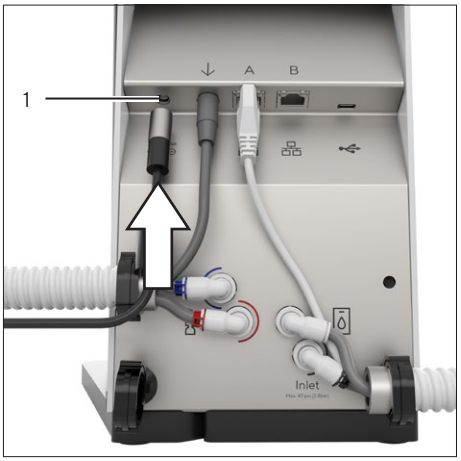
Danger of electric shock due to incorrect handling of power cables!

Severe injuries caused by using defective power supply cables.

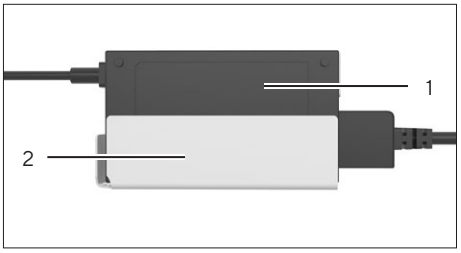
- ▶ Check the power supply cable for damage, e.g., cracks in the insulation, before use.
- ▶ Check whether the country-specific power plug matches the power supplies at the installation site.
  - ▶ If required: Replace the country-specific power plug adapter.
- ▶ Only use standardized cables with a protective grounding conductor during operation.
- ▶ **Never** disconnect the device from the protective grounding conductor.
- ▶ Carry out the power supply according to the regulations applicable in the relevant country.
- ▶ **Never** connect the power cable to the mains socket separately from the device.
- ▶ Make sure that the power plug or a different, suitable disconnecting device for the power is easily accessible in the event of danger.

Procedure

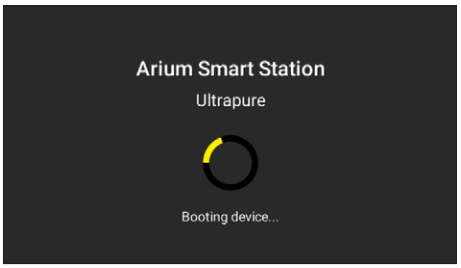
- ▶ **NOTICE** Risk of damage to the device due to excessive input voltage! Check the voltage specifications on the power supply unit to ensure they match those of the power supply at the installation site.
  - ▶ If the input voltage is too high: **Do not** connect the device to the power supply.
- ▶ Only use the original Sartorius power supply unit.
- ▶ Check whether the plug design of the power cable complies with your country's standard.
  - ▶ If required: Please contact Sartorius Service.



- ▶ Connect the power supply unit to the power supply (1) of the dispensing unit.



- ▶ Place the power supply unit (1) into the wall bracket (2). Install the wall bracket (see Chapter "5.6 Installing the Wall Bracket for the Power Supply Unit", page 36)
- ▶ Lay the excess cable of the power supply unit so that it **cannot** be damaged.
- ▶ Use the power cable to connect the device to the power supply.



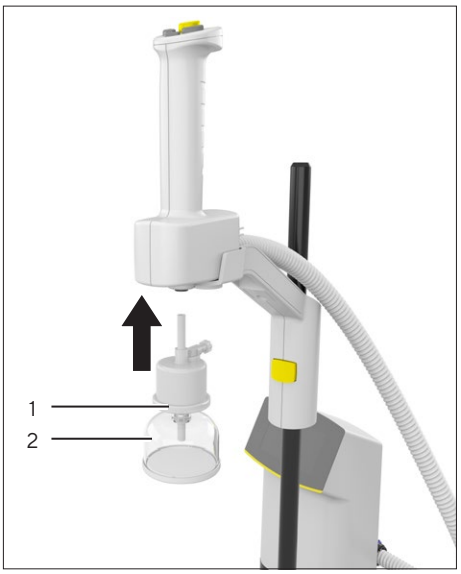
- ▷ The device starts and performs a system check. When the system check is complete: The wizard automatically carries out all of the commissioning steps.

6.3 Connecting the Final Filter (Optional)

Requirements

The “Connect filter” dialog box is displayed in the operating display.

Procedure



- ▶ Press the final filter (1) into the quick connector of the water outlet.
- ▶ Confirm the connection of the final filter with the [OK] button.
- ▷ The display changes to the dispensing screen.
- ▶ Rinse and change the final filter (see Instructions for the Final Filter).

7 Operation

7.1 Switching the Device On and Off

Procedure

▶ To switch the device on: Connect the device to the power supply.
▷ The device starts and performs a system check.
▶ To switch the device off: Disconnect the power cable from the power supply.

Ultrapure Water Quality

If the system is switched off in normal operation, e.g., in the evening or at weekends, then consistent ultrapure water quality is **no longer** guaranteed. In order to ensure a consistent ultrapure water quality, we recommend activating the standby mode on the Arium® water treatment device and all connected dispensing units.

7.2 Dispensing Water

7.2.1 Preparing to Dispense Water

The water can be dispensed as follows:

- Manual dispensing
- Volume-controlled dispensing

When dispensing large volumes, the water can be dispensed via a dispense tube, e.g. into a floor-standing tank. To do this, the final filter must be removed.

Requirements

- The device is ready for operation (see Chapter “6 Getting Started”, page 39).
- The device is in dispensing mode.

NOTICE

Water leakage due to vessel overflow!

▶ Do **not** allow water to be dispensed unattended. The vessel being filled may overflow.
▶ To avoid dispensing volumes that are too large: Dispense the water in a volume-controlled manner.

Procedure

- ▶ If dispensing is going to take place via the final filter: Remove the protective cap on the bell assembly of the final filter.
- ▶ If dispensing is going to take place via the dispense tube:
  - ▶ Remove the final filter (see Chapter 8.4.1, page 59).
  - ▶ Connect a dispense tube.
- ▶ Place a suitable vessel under the water outlet.
- ▷ The device is ready to dispense water.

7.2.2 Dispensing Water Manually

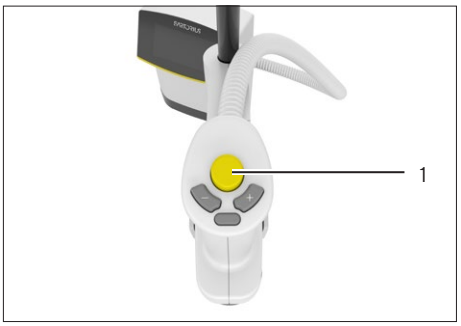
Manual dispensing can only be started or stopped via the hand-held part.

Requirements

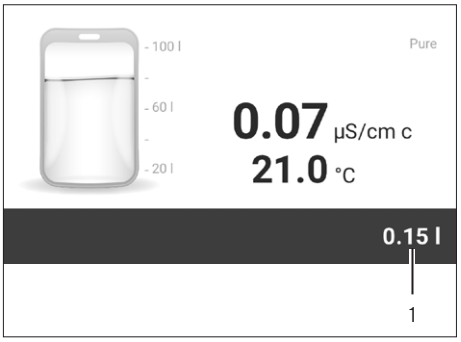
– The device is in dispensing mode.

Procedure

Dispensing with "Pure" Version

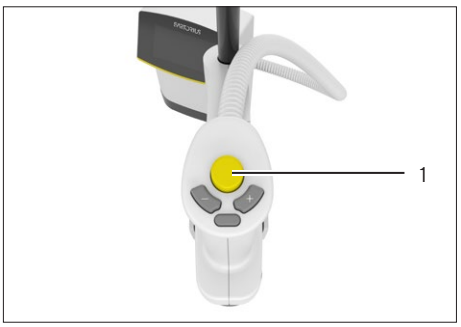


- ▶ To start the dispensing: Press the [Start / Stop] button (1).



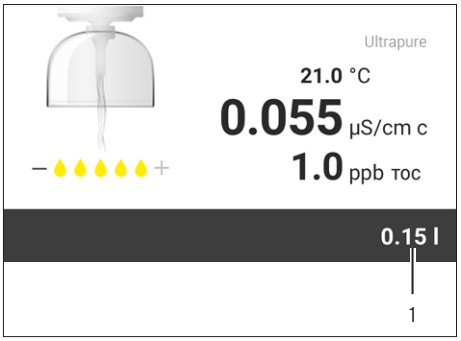
- ▷ The dispensing starts. The volume previously dispensed (1) is displayed.
- ▶ When the dispensing is complete: Attach the protective cap to the bell assembly of the final filter.

Dispensing with "Ultrapure" Version



- ▶ To start with low flow speed: Press and hold the [Start / Stop] key.

▶ To start with minimum flow speed: Press the [Plus] button (1).



▷ The dispensing starts. The volume previously dispensed (1) is displayed.
▷ For “Ultrapure” version only: The [Plus] and [Minus] buttons can be used to change the flow speed during dispensing.
▶ When the dispensing is complete: Attach the protective cap to the bell assembly of the final filter.

Automatic Stop of Manual Dispensing

Manual dispensing is stopped automatically after 30 minutes in order to prevent unattended water dispensing over an extended period.

7.2.3 Dispensing Water with Volume-control

During volume-controlled dispensing, a previously specified amount of water is dispensed. The volume to be dispensed must be entered with the following specifications:

- Minimum and maximum dispensing volume (for values, see Chapter “14.6 Device Functions”, page 70).
- Invalid numeric fields become inactive (white background).
- If there is not enough water available, a corresponding message will be displayed.

In the following system configurations, the dispensing unit knows the tank capacity and the filling level:

- “Pure” version for pure water: In combination with Arium® Advance or Arium® Comfort.
- “Ultrapure” version for ultrapure water: In combination with Arium® Comfort or in combination with Arium® Pro, which is connected to an Arium® Advance via a direct connection.

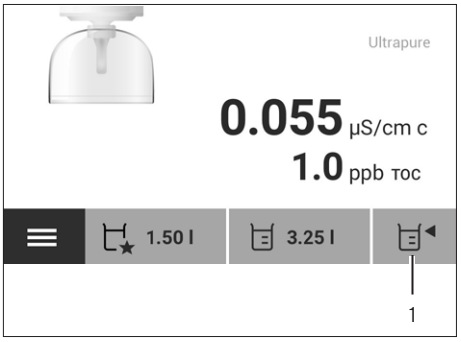
Setting the Dispensing Volume for Favorites

Requirements

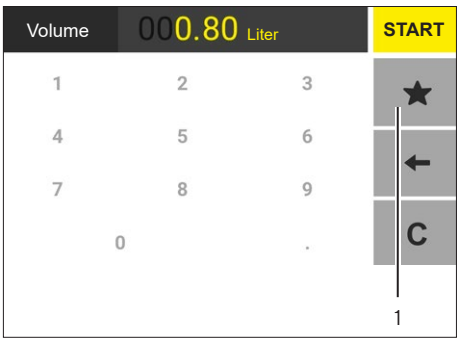
The device is in dispensing mode.

Procedure

- ▶ **NOTICE** Equipment may be damaged by objects with points or sharp edges! **Do not** exert mechanical pressure on the operating display with sharp objects. The operating element should only be operated by lightly pressing it using the tips of your fingers. The operating elements can also be operated with laboratory gloves.
- ▶ To start the volume input: Press the [Volume input] button (1).
- ▷ The numeric keypad for the volume input appears.



- ▶ Enter the desired dispensing volume in liters. When doing so, observe the requirements for the volume input.
- ▷ The entered volume appears.
- ▶ Press the [Favorite] button (1).
- ▷ The entered volume is saved as a favorite.

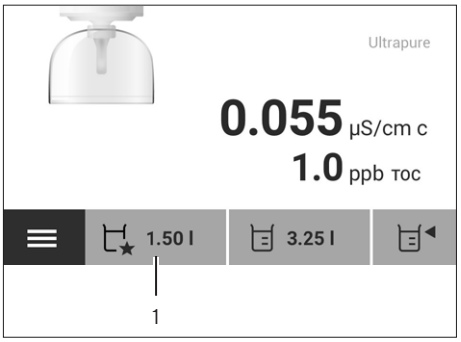


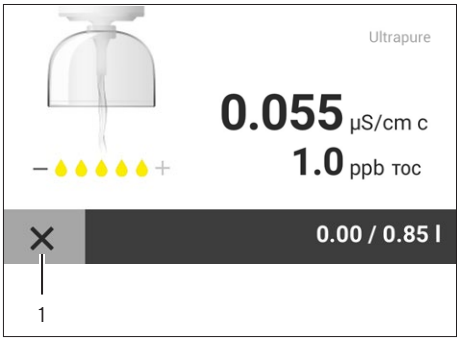
Using Favorites

The saved dispensing volume is displayed on the Favorites button on the dispensing screen.

Procedure

- ▶ To start a dispensing process with the saved volume: Press the [Favorite] button (1).
- ▷ The dispensing starts with the favorite volume:
  - The volume previously dispensed is displayed (for increment, see Chapter “14.6 Device Functions”, page 70).
  - The water flows into the vessel with the flow speed at the set level.
  - The dispensing stops automatically as soon as the selected volume has been reached.
- ▶ When the dispensing is complete: Attach the protective cap to the bell assembly of the final filter.





▶ To cancel the dispensing prematurely: Press the [Cancel] button (1).

Selecting a Saved Volume Value

The device saves values for the following volumes:

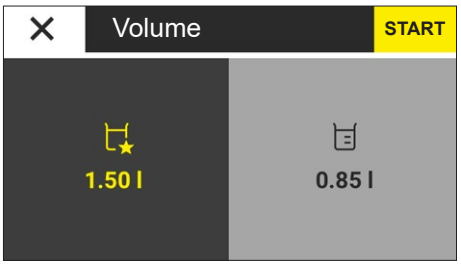
- The last volume dispensed (not manual dispensing).
- Saved favorite volumes.

Requirements

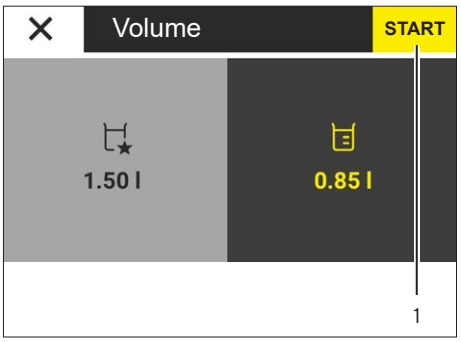
The device is in dispensing mode and is ready for dispensing.

Procedure

▶ To start a dispensing process with the last dispensed or the saved favorite volume: Press the [Volume] button (1).
▷ The volume selection appears.



▶ In order to select the desired volume: Press the [Plus] or [Minus] button on the hand-held part or press the desired volume on the operating display.
▷ The selected volume appears in an area with a dark gray background.



▶ To start the dispensing process with the selected volume: Press the [Start / Stop] button on the hand-held part or press the [START] button (1).
▷ The dispensing starts:
  - The volume previously dispensed is displayed (for increment, see Chapter “14.6 Device Functions”, page 70).
  - The water flows into the vessel with the flow speed at the set level.
  - The dispensing stops automatically as soon as the selected volume has been reached.

▶ When the dispensing is complete: Attach the protective cap to the bell assembly of the final filter.

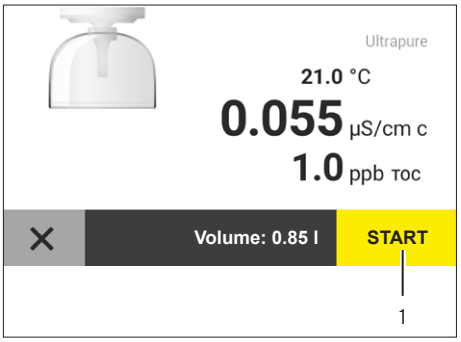
Repeating the Last Volume-controlled Dispensing

Release several volume-controlled dispensing processes each with the same volume in a sequence.

Requirements

The hand-held part has been held in the hand since the last volume-controlled dispensing process.

Procedure

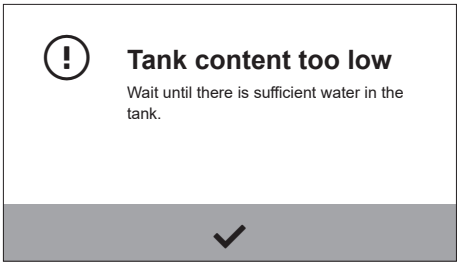


- ▶ To start another dispensing process with the last volume dispensed: Press the [Start / Stop] button on the hand-held part or press the [START] button (1).
- ▷ The dispensing starts with the last volume dispensed.

- ▶ To **not** repeat the volume-controlled dispensing with the last volume dispensed: Press the [Volume] button (1) or let go of the handle on the hand-held part.
- ▷ The standard dispensing mode appears.

7.2.4 Confirming Dispensing Cancellation

When dispensing from an Arium® Bagtank, it is only possible to dispense as much water as is available in the tank.

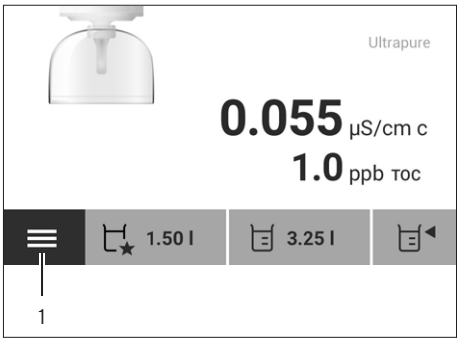


If the tank **no longer** contains sufficient water, the dispensing stops and the “Tank content too low” dialog box appears.

Procedure

- ▶ Confirm the message with the [OK] button.
- ▶ Wait until the tank has reached a sufficient filling level.
- ▶ Restart the dispensing process.

7.3 Opening the Menu



Procedure

▶ To open the menu: In dispensing mode, press the [Menu] button. The following tasks can be performed:

Possible Work on the Device	Chapter, Page
Activating or deactivating standby mode	7.4, 55
Changing system settings	4.11, 28
Opening the “Care” menu	8.3, 58

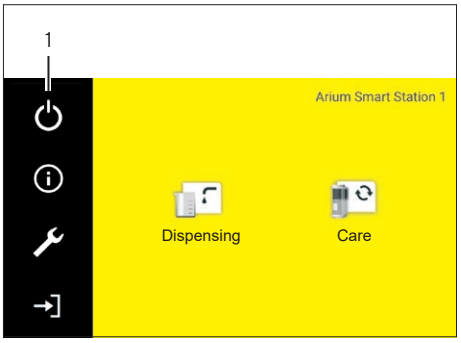
7.4 Activating or Deactivating Standby Mode

7.4.1 ECO Mode

If **no** water has been dispensed for a period of time after the last operating process and the hand-held part is not touched, the operating display goes dark (for the time period, see Chapter “14.6 Device Functions”, page 70).

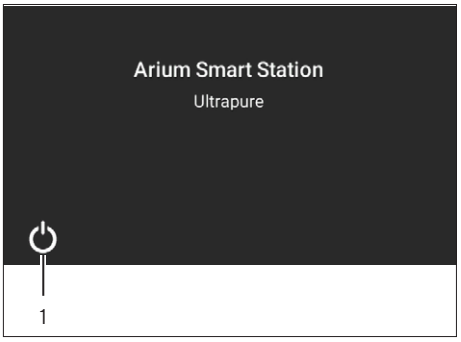
7.4.2 Standby Mode

If the complete system has not been in use for a prolonged period, the device automatically switches to standby mode (for the period, see the settings of the connected Arium® water treatment device, and for the “Pure” version see Chapter “14.6 Device Functions”, page 70). This ensures economical and eco-friendly operation. In standby mode, the system in the “Ultrapure” version circulates water at regular intervals. Standby mode can also be activated manually.



Procedure

▶ To activate standby mode: Press the [Standby] button (1).
▷ The operating display goes dark. The backlight on the [Standby] button stays visible.

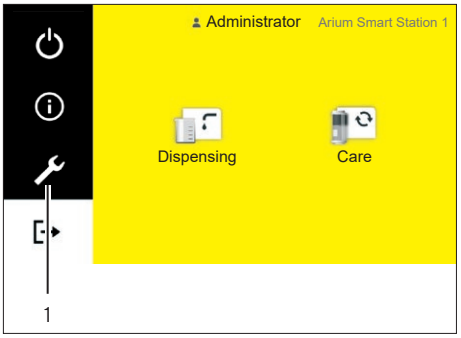


▶ To deactivate standby mode: Press the [Standby] button (1).
▷ The start screen appears. Once the system start is complete, the display changes to the dispensing screen.

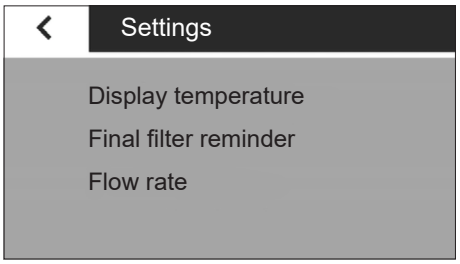
7.5 Changing System Settings

The system settings for the device, e.g., for the flow rate, can be changed in the “Settings” menu.

Procedure



▶ Press the [Setup] button (1).



▷ The “Settings” menu appears.
▶ Configure the desired settings (for possible settings, see the parameter list (see Chapter “4.11 Parameter List”, page 28).

8 Cleaning and Maintenance

8.1 Cleaning

8.1.1 Cleaning the Operating Display

Requirements

The operating process has been completed.

Procedure

- To **avoid** uncontrolled changes to the device settings: Activate standby mode (see Chapter "7.4 Activating or Deactivating Standby Mode", page 55).
- Wipe the operating display gently with a soft, dry cloth.
- Deactivate standby mode (see Chapter "7.4 Activating or Deactivating Standby Mode", page 55).

8.1.2 Cleaning the Device Housing

⚠ CAUTION

Risk of injury due to electrical current!

There is a risk of electric shock when cleaning the device and its components while live.

- Always disconnect the device from the power supply before cleaning.

NOTICE

The electronic equipment could be damaged by improper cleaning!

Liquids or dust can damage the device or the power supply unit.

- **Never** open the power supply unit.
- Make sure that **no** liquids or dust get into the device or the power supply unit.

NOTICE

Damage to the device surfaces!

Aggressive cleaning agents may damage device surfaces.

- Never use cleaning agents that contain solvents, acetone, or abrasive ingredients.

Procedure

- Only use suitable cleaning agents and observe the product information for the cleaning agent used.
- Wipe the housing with a slightly damp cloth. Use a mild soapy solution or a suitable cleaning agent for more severe contaminations.

8.2 Maintenance Schedule

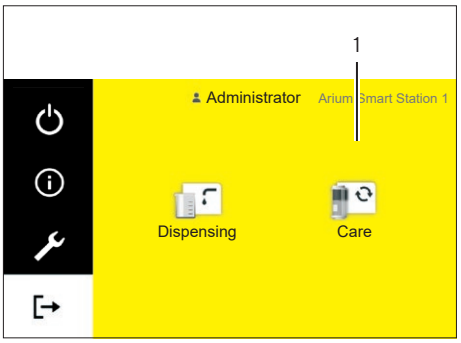
Depending on the volume of water dispensed, it may be necessary to change the consumables more often than specified in the maintenance schedule. If, for example, sterile water is always required, the final filter must be replaced regularly.

Interval	Component	Activity	Chapter, Page
1–6 months (depending on the application)	Sterile filter (final filter)	Change the final filter	8.4, 59
1–3 months (depending on the application)	Ultrafilter (final filter)	Change the final filter	8.4, 59

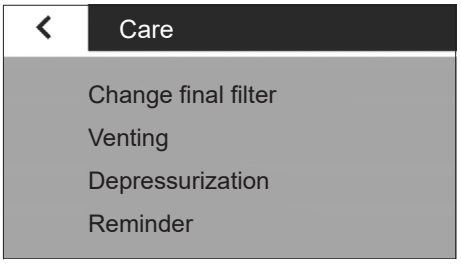
8.3 Opening the "Care" Menu

The "Care" menu contains all the steps for the care and maintenance work and is only available to the administrator.

Procedure



▶ In the main menu, press the [Care] symbol (1).

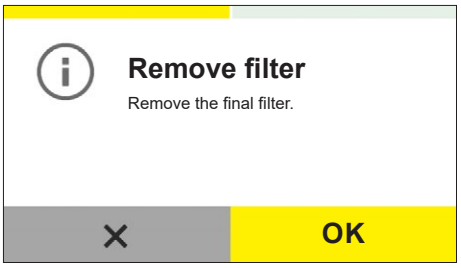


▷ The "Care" menu opens. The following tasks can be performed:

Possible Work on the Device	Chapter, Page
Change final filter	8.4, 59
Perform venting	8.5, 60
Perform depressurization	8.6, 61
Enabling, disabling, or configuring reminders for replacing final filters	8.7, 62

8.4 Changing the Final Filter

8.4.1 Removing the Final Filter

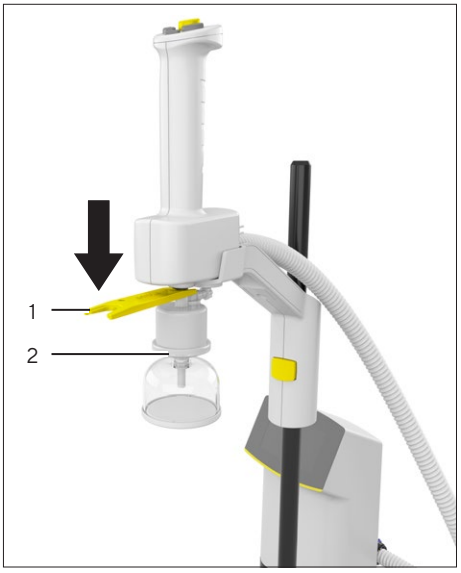


Requirements

– If the menu item [Sterile filter] or [Ultrafilter] is activated in the “Replace consumables” menu: The “Remove filter” dialog box appears.

Required tools: Tubing release tool

Procedure



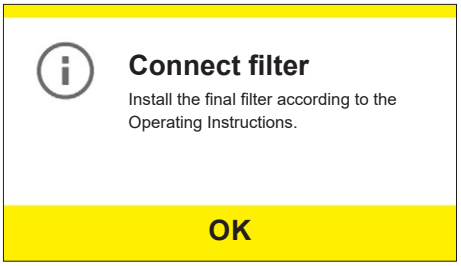
▶ Use the tubing release tool (1) to push and hold the water outlet quick connector up.
▷ The quick connector is unlocked.
▶ Pull the final filter (2) out of the quick connector.
▶ Confirm the removal of the final filter with the [OK] button.

8.4.2 Connecting the New Final Filter

Requirements

– The final filter has been removed.
– The “Connect filter” dialog box appears.

Procedure



▷ Connect a new final filter and rinse according to the instructions for the final filter (see Chapter “6.3 Connecting the Final Filter (Optional)”, page 48).

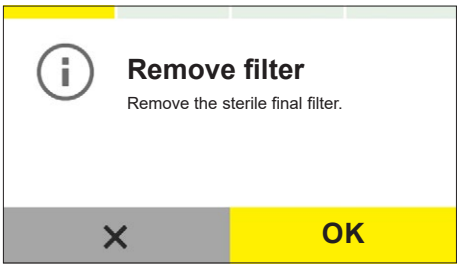
8.5 Performing Venting

During the venting process, air is removed from the water circulation.

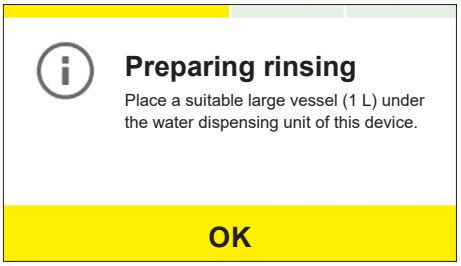
The water circulation must be rinsed if the following conditions are present:
- The displayed water quality fluctuates continuously during operation.
- The device has been out of operation for an extended period.

Procedure

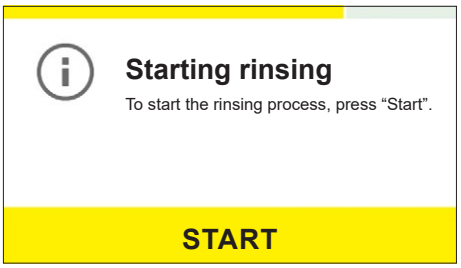
▶ Press the [Venting] menu item in the “Care” menu.
▷ The “Remove filter” dialog box is displayed.
▶ Remove the final filter (see Chapter 8.4.1, page 59).
▶ Confirm the removal of the final filter with the [OK] button.



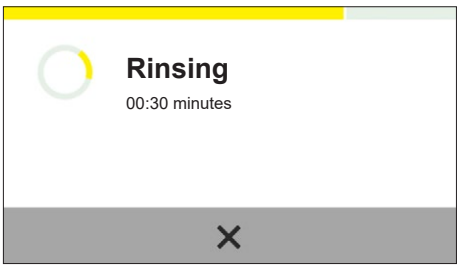
▷ The “Prepare rinsing” dialog box is displayed.
▶ Place a vessel (at least 1 liter) under the water outlet. Alternatively, connect the dispense tube and run the free end to the drain.
▶ Press the [OK] button.



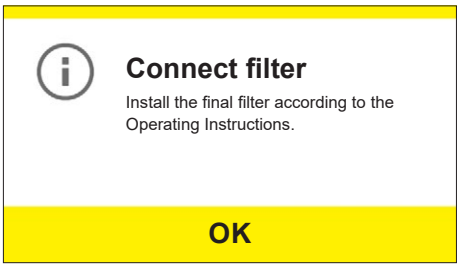
▶ To start the rinse: Press the [START] button.



▷ During the rinsing process, the remaining rinse time is displayed in minutes.
▶ To interrupt the rinsing process:
  ▶ Press the [Cancel] button.
  ▷ The “Start rinsing” dialog box is displayed again.
▶ To resume the rinsing process after an interruption: Press the [START] button.



▷ When rinsing is complete, the “Connect filter” dialog box appears.
▶ Connect the final filter (see Chapter 8.4.2, page 59).
▶ Confirm the connection of the final filter with the [OK] button.
▷ The display changes to the dispensing screen.

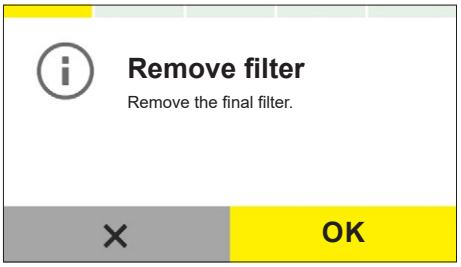


8.6 “Pure” Version: Perform Depressurization

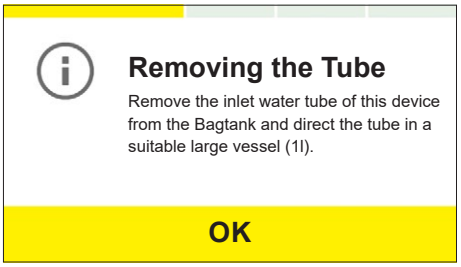
The device is pressurized during operation. If the device is taken out of operation for an extended period or permanently, the pressure in the device must be released.

Procedure

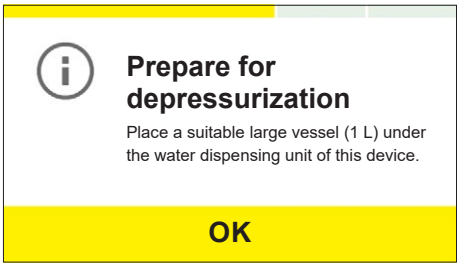
▶ Press the [Depressurize] menu item in the “Care” menu.
▷ The “Remove filter” dialog box is displayed.
▶ Remove final filter (see Chapter 8.4.1, page 59).
▶ Confirm the removal of the final filter with the [OK] button.



▶ Remove the inlet water tube of this device from the Arium® Bagtank.
▶ Put the tube into a sufficiently large vessel (1 L).

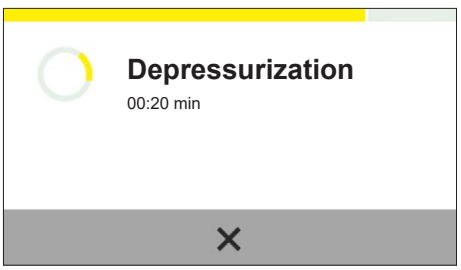


▷ The “Prepare depress” dialog box is displayed.
▶ Place a vessel (at least 1 liter) under the water outlet. Alternatively, connect the dispense tube and run the free end to the drain.
▶ Confirm this preparatory step with the [OK] button.



▷ The “Start depressurization” dialog box is displayed.
▶ Press the [START] button.

▷ The “Depressurization” dialog box is displayed.
▷ The device depressurizes. The process takes about half a minute.
▶ To cancel the depressurization process before it is finished, e.g., if there is **not** a sufficiently large vessel available: Press the [Cancel] button.
▷ The “Start depressurization” dialog box is displayed again.
▶ Carry out depressurization as described above again.

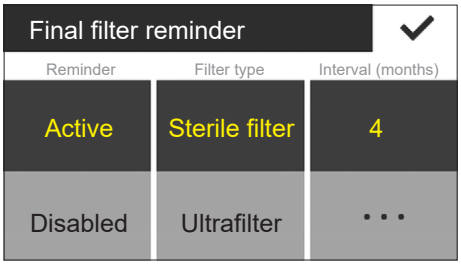


▷ When depressurization is complete, the “Turn off device” dialog box appears.
▶ Disconnect the device from the power supply.
▶ Pressurization is carried out when the device is switched on again.

8.7 Enabling, Disabling, or Configuring Reminders for Replacing Final Filters

If sterile or endotoxin-free water is constantly required, the final filter must be replaced regularly. The device can provide a reminder about a pending final filter replacement.

Procedure



▶ Press the [Final filter reminder] menu item in the “Care” menu.
▷ The “Final filter reminder” dialog box is displayed.
▶ Press the [Active] button.
▷ Select the installed final filter, e.g., [Sterile filter] or [Ultrafilter].
▷ The currently configured replacement interval appears in the “Reminder [Months]” column.
▶ To change the replacement interval: Press the [More] button.
▷ The numeric keypad appears.
▶ Type the desired replacement interval (in months) (required maintenance intervals, see Chapter “8.2 Maintenance Schedule”, page 58)
▶ Confirm the entry with the [OK] button.
▶ To activate the reminder: In the “Final filter reminder” dialog box, press the [Save] button.
▶ If **no** sterile or endotoxin-free water is required:
  ▶ Remove the final filter.
  ▶ To deactivate reminders about replacing the final filter: In the “Final filter reminder” dialog box, press the [Disabled] button.

9 Faults

9.1 Warning Messages

If a warning message is active, water can still be dispensed. In some circumstances, the water quality is impaired.

Warning Message	Fault	Cause	Correction	Chapter, Page
Final filter replacement required.	The final filter must be replaced.	The replacement interval of the final filter has expired.	Replace final filter.	Chapter "8.4 Changing the Final Filter", page 59
Maintenance by Sartorius Service is required.	The maintenance service must be conducted.	The maintenance service interval has expired.	Please contact Sartorius Service.	

9.2 Error Messages

If an error message is active on the Arium® water treatment device, dispensing is canceled and locked automatically. The Arium® water treatment device error messages are also displayed in parallel on the operating display of the dispensing unit (for troubleshooting, see the instructions for the Arium® water treatment device).

Error message	Fault	Cause	Correction	Chapter, Page
Error 0205	Communication error	– The device cannot connect, e.g., a device is turned off. – A connection cable is not connected.	– Connect together all the devices in the system. – Turn on all the devices.	Chapter "6 Getting Started", page 39
Error 0206	**No** connection to the hand-held part	– The control unit cannot connect to the hand-held part. – The hand-held part data cable is not connected.	– Connect together all parts of the device.	Chapter "6.1.7 Connecting the Hand-held Part", page 44

9.3 Other Faults

Fault	Cause	Correction	Chapter, Page
The dispensing unit interrupts dispensing unexpectedly.	For "Pure" version: The Arium® Bagtank is empty or the Arium® Bagtank pump is switched off.	Check the fill level of the Arium® Bagtank in the operating display. Check whether the Arium® Bagtank pump is switched on.	
		Check the correct connection of the dispensing unit's inlet water tube.	6.1, 39
	For "Ultrapure" version: There is **no** feed water connected to the Arium® water treatment device.	Connect the inlet water tube to the Arium® water treatment device and open the water supply.	6.1, 39
	The final filter is blocked or contains air.	If **no** water can be dispensed when the final filter is connected: – Rinse the final filter. – Perform a venting process for the final filter. – If the error still occurs: Replace the final filter.	8.5, 60 8.4, 59
		If **no** water can be dispensed when the final filter has been removed: Please contact Sartorius Service.	
"Standby" **not** possible.	A device in the system is **not** in the main menu or dispensing mode, e.g. "Settings" is open.	Ensure that all the devices in the system are active.	
The integrated dispensing valve does **not** open or close.	The integrated dispensing valve is blocked or the electronic contact is missing.	Please contact Sartorius Service.	
Incorrect dispensing volume during volume-controlled dispensing.	The integrated flow sensor does **not** transmit any flow or transmits the wrong flow.	Have the flow sensor adjusted: Please contact Sartorius Service.	
The flow rate cannot be controlled.	The integrated control valve does **not** open or close.	Please contact Sartorius Service.	

10 Decommissioning

10.1 Decommissioning

Requirements

The operating process has been completed.

Procedure

- ▶ Finish the water dispensing (see Chapter “8.6 “Pure” Version: Perform Depressurization”, page 61)
- ▶ Disconnect the device from the power supply.
- ▶ Disconnect the device from the supply lines.
- ▶ Remove all consumables used.
- ▶ Disconnect all connected components from the device.
- ▶ Clean the device (see Chapter “8 Cleaning and Maintenance”, page 57).

11 Transport

11.1 Transporting the Device

Requirements

The device has been decommissioned.

Procedure

- ▶ ⚠ **CAUTION** Danger of body parts being crushed when installing the device due to careless handling! People could be injured if the device falls down. Lift the device by the stand arm and the control unit at the same time.

12 Storage and Shipping

12.1 Storage

Procedure

- ▶ If the device is in operation: Decommission the device.
- ▶ Clean the device (see Chapter “8 Cleaning and Maintenance”, page 57).
- ▶ Store the device according to the ambient conditions (see Chapter “14.3 Ambient Conditions”, page 69),

12.2 Returning the Device and Parts

Defective devices or parts can be returned to Sartorius. Returned devices must be clean, decontaminated, and properly packed.

Transport damage as well as measures for subsequent cleaning and disinfection of the device or parts by Sartorius shall be charged to sender.

Procedure

- ▶ Decommission the device.
- ▶ Contact Sartorius Service for instructions on how to return devices or parts (please refer to our website at www.sartorius.com for return instructions).
- ▶ Pack the device and its parts properly for return.

13 Disposal

13.1 Decontaminating the Device

The device does **not** contain any hazardous materials that necessitate special disposal measures. If the device has come into contact with hazardous substances: Steps must be taken to ensure proper decontamination and declaration.

Procedure

- ▶ If the device has come into contact with hazardous substances: Decontaminate the device. The operator of the device is responsible for adhering to local government regulations on the proper decontamination and declaration for transport and disposal.

13.2 Disposing of Device and Parts

The device and the device accessories must be disposed of properly by disposal facilities.

A lithium button cell battery, type CR2032, is installed inside the device. Batteries must be disposed of properly by disposal facilities.

The packaging is made of environmentally friendly materials that are intended to be used as secondary raw materials.

Requirements

The device has been decontaminated.

Procedure

- ▶ Dispose of the device. Follow the disposal instructions on our website (www.sartorius.com).
- ▶ Inform the disposal facility that there is a lithium button cell battery, type CR2032, installed inside the device.
- ▶ Dispose of the packaging and consumables in accordance with local government regulations.

14 Technical Data

14.1 Dimensions and Weights

14.1.1 Dispensing Unit with Stand

	Unit	Value
Dimensions		
Control unit with stand (L × W × H)	mm	213 × 213 × 598
Maximum operating range of the stand arm (L × W × H)	mm	428 × 476 × 835
Tube length		
Distance from water treatment device, approx.	m	2
Operating range of the flexible hand-held part, approx.	m	0.7
Weight, approx.	kg	4.9

14.1.2 Dispensing Unit with Wall Bracket

	Unit	Value
Dimensions		
Control unit (L × W × H)	mm	172 × 157 × 343
Hand-held part (L × W × H)	mm	242 × 90 × 300
Tube length		
Distance from water treatment device, approx.	m	2
Operating range of the flexible hand-held part, approx.	m	0.7
Weight, approx.	kg	2.4

14.2 Installation Conditions

14.2.1 Space Requirement for the Dispensing Unit with Stand

	Unit	Value
Height, minimum	mm	600
Space for device (L × W), minimum	mm	474 × 476

14.3 Ambient Conditions

	Unit	Value
Installation site		
Standard laboratory rooms		
Height above sea level, maximum	m	3000
For indoor use only		
Pollution level of the power supply unit according to IEC 61010-1		2
Temperature		
In operation	°C	+2 – +40
Relative humidity		
At temperatures up to 31°C, maximum	%	80
Then linear decrease from maximum 80% at 31°C to maximum 50% at 40°C		

14.4 Storage Conditions

	Unit	Value
Temperature	°C	+2 – +60
Relative air humidity, maximum	%	90

14.5 Electrical Data

14.5.1 Power Supply to the Power Supply Unit

	Unit	Value
Power supply only permitted using the Sartorius power supply unit		
Sartorius power supply unit, part no. 1000081531		
Primary		
AC voltage	V	100–240 (±10%)
Frequency	Hz	50–60 (±5%)
Current consumption, maximum	A	1.0
Secondary		
DC voltage	V	24
Current, maximum	A	2.5
Power connection only permitted using original power supply cable		
Power supply unit fuses		
Type		Electronic

	Unit	Value
Protection class according to IEC 62368-1		I
Power supply cable		
Power supply cable according to IEC 60320-1/C14: Country-specific, 3-pin, two-sided plug		
For further data, see label on the power supply unit		

14.5.2 Power Consumption of the Dispensing Unit

	Unit	Value
Power consumption, typical	W	32
Maximum current consumption at 24Vdc (±10%)	A	1.3
Fuse, cannot be changed electronically	A	2.14

14.5.3 Safety and Electrical Compatibility

Safety according to IEC 61010-1 Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements
Suitable for use in industrial areas (interference immunity)
Electromagnetic compatibility, according to EN 61326-1 Electrical equipment for measurement, control, and laboratory use – EMC requirements – Part 1: General requirements (IEC 61326-1)
Interference emission, class B
Class B: Suitable for use in residential areas and areas that are connected to a low voltage network that also supplies residential buildings.

14.6 Device Functions

	Unit	Value
Water type, according to the connected Arium® water treatment device		Ultrapure water type 1 or pure water type 2 and type 3
Inlet pressure, maximum	bar	3.4
Volume-controlled dispensing	l	Between 0.05 and the maximum tank content or 60 (in 50 ml increments)
Inlet water temperature, maximum	°C	40
Period of time before Eco mode starts	Minutes	1
For "Pure" version: Period of time before device switches to standby mode	Minutes	15

14.7 Interfaces

14.7.1 Specifications of the Ethernet Interfaces

	Unit	Value
Type		Ethernet
Quantity		2
Transmission rate	Mbit/s	10 / 100

14.7.2 Specifications for the USB-C Interface

	Unit	Value
Communication: USB host (master)		
Connectable devices		
Sartorius printer		
USB stick, maximum storage size	TB	2
PC		
Full- / Low-Speed, 5 V / 500 mA		

14.8 Permitted Devices or Components

Arium® water treatment devices: Arium® Pro, Arium® Comfort, Arium® Advance, Arium® Bagtank

14.9 Materials

Housing surfaces: Plastic (PBT and PP)
Operating display: Glass

14.10 Cleaning Agents and Cleaning Procedures

14.10.1 Cleaning Agents

Materials suitable for the device: Water, isopropyl alcohol
No corrosive or scouring components
No chlorine or chloride-containing components
No solvents

14.10.2 Cleaning Procedure

No autoclaving
No high-pressure cleaners or steam jet cleaners

14.11 Information on Disposal

14.11.1 Batteries

Battery installed inside the device
Type: CR2032 button cell battery

14.12 IT Connection of the Device

14.12.1 Using the IT Connection

IT Connection	Required | Possible	Needed for Working on the Device	Required Duration: Permanent | While Work is Being Carried Out
Ethernet network	Required	– System settings – Operation – Maintenance	Permanent

14.12.2 General Recommendations for Access Restrictions

Recommendation	Description
Access restrictions to the device and the IT system	– Use internal IT systems with measures for risk reduction, e.g., firewalls, antivirus programs – Operate risk mitigation measures in safety mode, e.g., for software updates – Create user profiles with access restriction – Only assign rights for user actions on the device to users who need to perform the user actions – Deactivate any unused IT connections
Dealing with IT security incidents	– React to IT security incidents immediately. Contact Sartorius Service if you have any questions.
Training users on IT security measures	– Inform users about the IT security measures taken, e.g., for handling passwords or IT security incidents.

15 Accessories and Consumables

15.1 Accessories

This table contains an excerpt of the accessories that can be ordered. For information on other products, please contact Sartorius.

Description	Order Number
Arium® Pure tube extension set (4 meters)	H2O-ATES-P
Arium® Ultrapure tube extension set (4 meters)	H2O-ATES-UP

15.2 Consumables

This table contains an excerpt of the consumables that can be ordered. For information on other products, contact Sartorius.

Description	Order Number
Final filter	
Sterile filter Arium® Sterile Plus (Sartopore® 2 150 capsules)	5441307H4--CE
Ultrafilter Arium® Cell Plus	H2O-CUF

16 Sartorius Service

Sartorius Service is at your disposal for queries regarding the device. Please visit the Sartorius website (www.sartorius.com) for information about the service addresses, services provided, or to contact a local representative.

When contacting Sartorius Service with questions about the system or in the event of malfunctions, be sure to have the device information, e.g., serial number, hardware, firmware, and configuration, to hand. Consult the information on the manufacturer's ID label and in the "Device Information" menu.

17 Conformity Documents

The attached documents declare the conformity of the device with the designated directives or standards.

Original

SARTORIUS

CE

EG-/EU-Konformitätserklärung
EC / EU Declaration of Conformity

Hersteller *Manufacturer*	Sartorius Lab Instruments GmbH & Co. KG 37070 Goettingen, Germany

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under sole responsibility that the equipment

Geräteart *Device type*	Reinstwasser-Abgabesystem *Ultra-Pure Water Dispensing System*
Baureihe *Type series*	**Arium® Smart Station**
Modell *Model*	**H2O-ARST-UP-T, H2O-ARST-UP-B, H2O-ARST-P-T, H2O-ARST-P-B**

in der von uns in Verkehr gebrachten Ausführung allen einschlägigen Bestimmungen der folgenden Europäischen Richtlinien entspricht und die anwendbaren Anforderungen folgender harmonisierter Europäischer Normen einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen erfüllt:

in the form as delivered fulfils all the relevant provisions of the following European Directives and meets the applicable requirements of the harmonized European Standards including any amendments valid at the time this declaration was signed listed below:

2014/30/EU	Elektromagnetische Verträglichkeit / *Electromagnetic compatibility* EN 61326-1:2013
2011/65/EU	Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten (RoHS) / *Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)* EN 50581:2012
2006/42/EG *2006/42/EC*	Maschinen *Machines* EN ISO 12100:2010, EN 61010-1:2010*)

Die Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:
The person authorised to compile the technical file:

Sartorius Lab Instruments GmbH & Co. KG
Electronics & Product Compliance
37070 Goettingen, Germany

Sartorius Lab Instruments GmbH & Co. KG
Goettingen, 2021-03-03

i. V. Dr. M

Dr. Reinhard Baumfalk
Head of Product Development (LPS)

i. A.

Halil Yildirim
Product Compliance Officer (SLI)

*: angewandte, jedoch für Maschinen nicht harmonisierte Norm /
applied standard, which however is not harmonized for machines

Doc: 2640959-00 SLI20CE006-00.de,en 1 / 1 PMF: 2640958 OP-113_fo1_2020.07.07

Original

UK Declaration of Conformity

Manufacturer Sartorius Lab Instruments GmbH & Co. KG
37070 Goettingen, Germany

declares under sole responsibility that the equipment

Device type Ultra-Pure Water Dispensing System

Type series Arium® Smart Station

Model H2O-ARST-UP-T, H2O-ARST-UP-B, H2O-ARST-P-T, H2O-ARST-P-B

in the form as delivered fulfils all the relevant provisions of the following British Regulations and meets the applicable requirements of the British Designated Standards including any amendments valid at the time this declaration was signed listed below:

The Electromagnetic Compatibility Regulations 2016
UK Statutory Instruments 2016 No. 1091
BS EN 61326-1:2013

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
UK Statutory Instruments 2012 No. 3032
BS EN 50581:2012

The Supply of Machinery (Safety) Regulations 2008
UK Statutory Instruments 2008 No. 1597
BS EN ISO 12100:2010, BS EN 61010-1:2010*)

The person authorised to compile the technical file:

Sartorius UK Ltd.
Longmead Business Centre, Blenheim Road
KT19 9 QQ Epsom, Surrey, UK

Sartorius Lab Instruments GmbH & Co. KG
Goettingen, 2021-03-03

i.V. Dr. Reinhard Baumfalk
Head of Product Development (LPS)

i.A. Halil Yildirim
Product Compliance Officer (SLI)

*: applied standard, which however is not harmonized for machines

Doc: 2651421-00 SLI21UKCA002-00.en 1 / 1 PMF: 2640958 OP-113_fo18_2021.01.01

Sartorius Lab Instruments GmbH & Co. KG
Otto-Brenner-Strasse 20
37079 Goettingen, Germany

Phone: +49 551 308 0
www.sartorius.com

The information and figures contained in these instructions correspond to the version date specified below.
Sartorius reserves the right to make changes to the technology, features, specifications and design of the equipment without notice.
Masculine or feminine forms are used to facilitate legibility in these instructions and always simultaneously denote the other gender as well.

Last updated:
04 | 2021

Printed in the EU on paper bleached without chlorine. | JW
Publication No.: WH26018-e210404