smixin™
smart hand washing systems

www.smixin.com

COMPACT

OPERATING MANUAL

V1 – 10/2017
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Need help?

Please call our Customer Support at +41 32 366 64 01 or send an email to support@smixin.com for additional assistance or service.

SMIXIN SA
Rue Centrale 115
CH-2503 Bienne
www.smixin.com

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1 Safety

1.1 General safety rules

This product should be installed in accordance with all the current local plumbing and building regulations. Pipes used for connection must be certified according to the same regulations. For more information, ask your local competent authorities.

The Compact is connected to the electrical mains, clear fresh water mains and waste water drainage. For these reasons, any installation, connection, and maintenance work shall only be carried out by qualified personnel.

Qualified personnel are distinguished from non-qualified personnel by the following skills and abilities:

- Certified professional training as well as additional knowledge and experience,
- Knowledge of respective technical terms, relevant rules and regulations,
- The ability to evaluate the assigned tasks, to recognize potential hazards and take appropriate safety measures.

If any defect is identified in the Compact, please contact the service partner or Smixin SA.

The Compact is intended for hand washing only.

In order to use the Compact as intended, only use consumables recommended by Smixin SA.

The Compact can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities, lack of experience and knowledge, if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the Compact.

Cleaning and maintenance shall not be made by children unless they are under supervision.

The use of consumables other than those recommended by Smixin SA is considered improper.

Change the soap pouch after 2500 hand washing cycles or after 6 months of use at the latest.

The Compact is constantly loaded with an electrical low-voltage charge. Switch it immediately off if you discover damage of adaptor or power cable.

The external cord of the power supply cannot be replaced; if the cord is damaged, the power supply shall be scrapped and replaced with the same model.

The Compact shall only be used with the power supply provided. Once installed, the power supply must remain accessible at all time.

Operating the Compact close to other electronic equipment may cause interference if the equipment is inadequately protected. Observe any warning signs and manufacturers recommendations.

1.2 General information

NO DRINKING WATER

The water delivered by the Compact is not drinkable. It may contain traces of soap.

CE MARKING

The machine was developed referring to the following directives:

- Low Voltage Directive: 2014/35/UE,
- EMC Directive: 2014/30/UE,
- Machinery Directive: 2006/42/EC,
- RoHS Directive: 2011/65/UE.

ENVIRONMENTAL PROTECTION AND DISPOSAL

Dispose the Compact according to Chapter 7.4 Environmental protection and disposal.

1.3 Guarantee

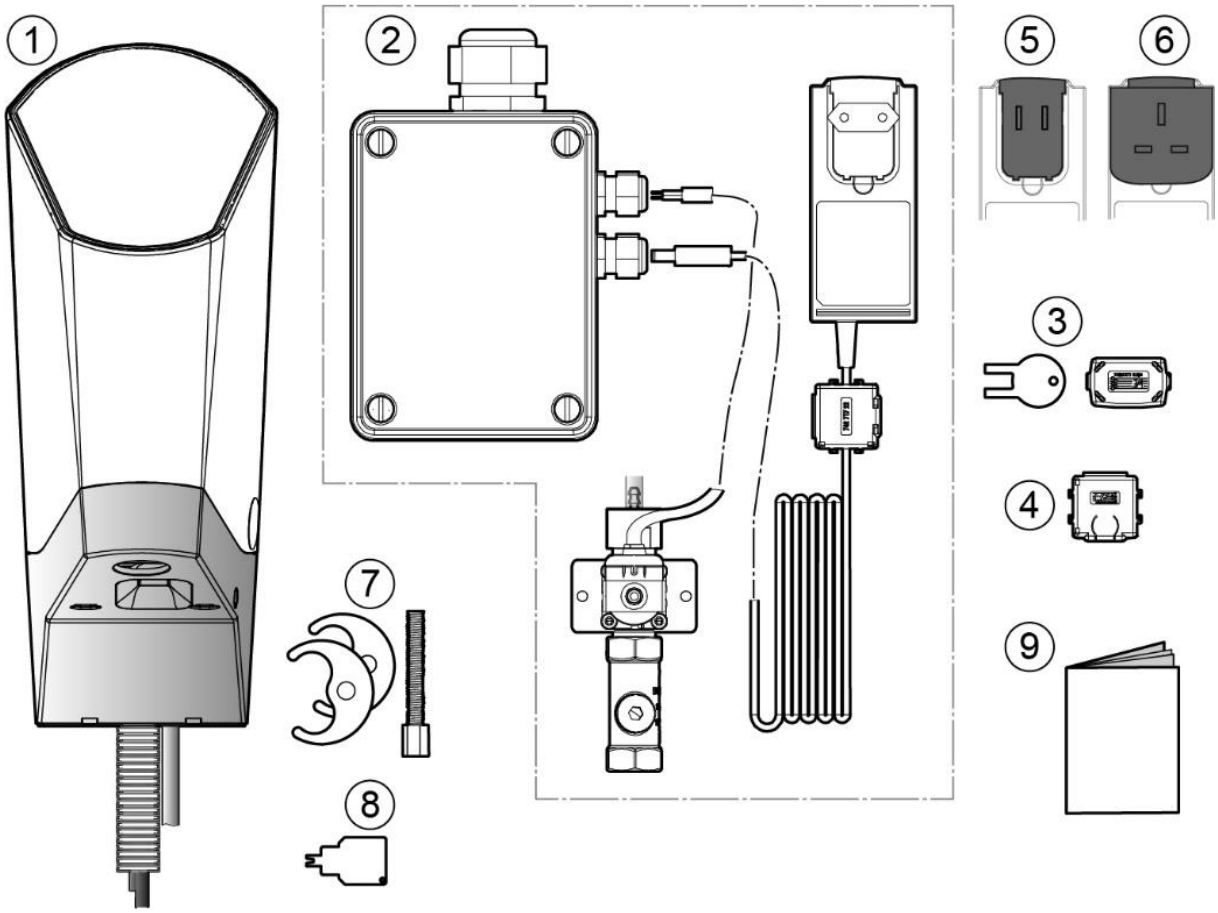
Generally, the General Conditions of Sales of SMIXIN SA. apply. Any guarantee and liability claim for personal injury and property damage are excluded if they are caused by one or more of the following reasons:

- Compact is not used as intended,
- Compact is improperly used or modified,
- Compact is operated with defective or improperly installed or non-functioning safety devices and guards,
- Instructions for transport, storage, installation, operation and maintenance given in this manual of the Compact are not observed,
- Insufficient supervision of wear parts,
- Case of force majeure and influence of foreign bodies.

Warranty obligations are limited to 2 years and related to defects in materials and workmanship.

2 Product overview

2.1 Scope of delivery



1	Compact Tap Module
2	Black Box, flow regulation valve and power supply with EU plug
3	Snap-On ferrite with key
4	Cubic Snap-On ferrite
5	Power Supply Adapter USA
6	Power Supply Adapter UK
7	Tap fixation kit
8	Compact key
9	Installation guide

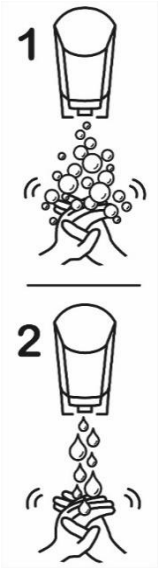
2.2 Product functionality

The Compact is the perfect alliance between technology, savings and sustainability for the sanitary sector. It is a Swiss innovation based on a patented technology that mixes water, air and soap to optimum effect. The main interest of this system lies in its drastic reduction of water consumption. It also avoids any physical contact with contaminated surfaces, limiting pathogen contamination.

Each system is equipped with an internet connection, to allow verification of the quantity of water and soap used, and management of the devices in real time from anywhere.

2.3 Hand washing cycle

As soon as the user puts his/her hands under the outlet, a hand sensor initiates a hand-washing cycle:



STEP 1 – Soap distribution & scrubbing phase

The SMU mixes water, soap and air to create an emulsion enabling efficient wetting and soaping in one step.

There is a small pause between the soaping and rinsing phase to allow scrubbing.

STEP 2 – Rinsing

Clear water is dispensed to rinse the soap.

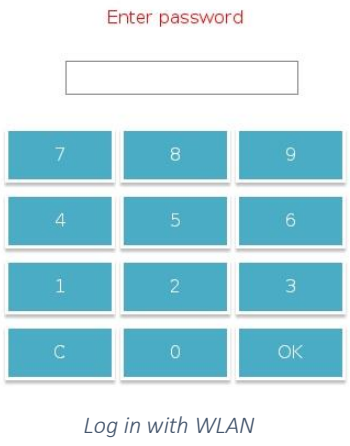
3 Initiating operation

3.1 Setting up the Compact

1. Use the key to open the Compact,
2. Push the Yellow Lever towards the back of the system to unlock the Docking Station,
3. Insert the soap pouch with the SMU into the Docking Station. Make sure the black side is facing your body,
4. Lock the Docking Station by pulling the Yellow Lever towards you,
5. Press evenly on the top of the Compact to close it. Wait 20 seconds and trigger a cycle to check if the system runs.

3.2 Access to the menu and parameters

3.2.1 Access to the User Interface via Laptop, Tablet, Smartphone



To operate the Compact using laptop, tablet, smartphone, … Proceed as follows:

1. Search for the Compact WLAN with the name “SMIXIN-System-XXXXXX” where X are numbers,
2. Connect to the Compact WLAN by using the factory password “11111111”,
3. Start your web browser and go on www.smixin.com
4. Enter the password in the log in window.

3.2.2 Configuring via WLAN

After entering the password in the log in window you are ready to change and save configurations of the Compact. The program the sections "Cycle Parameters"; "Settings" and “Statistics”.

In the section "Cycle Parameters" you can adjust:

- Amount of soap,
- Soap emulsion distribution time,
- Pause between wetting / soaping and rinsing,
- Duration of rinsing process,
- Time-out between two hand-washing cycles,
- Duration of inhibit mode for cleaning.

In the section "Settings" you can:

- Reset the counter
- Remaining cycles until next recharge,
- Change language,
- Change password,
- Set date and time,
- Change the name of WLAN.

In the section "Statistics" you can view statistic on the use of the Compact. The data below is recorded:

- Last 24 hours: number of hand-washing cycles per hour,
- Last week: number of hand-washing cycles per week day,
- Last month: number of hand-washing cycles per calendar day.

The button "Update" reloads the view and shows the latest data.

3.3 Quick check

1. Step up in front of the Compact. Once it detects your presence, a white light illuminates the sink and the system is ready for operation,
2. Put your hands above the sink under the SMU,
3. Wash your hands (see chapter 3.2 Access to the menu and parameters),
4. Make sure that no water leaks and no maintenance light is on.

Now the Compact can be used.

4 System parameter and statistics

4.1 Factory default settings

Out of factory the system is configured according to the following default settings:

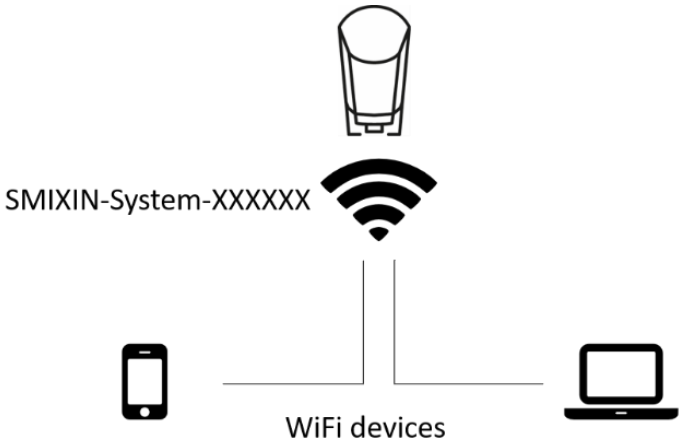
Wireless	
Type	Access point
SSID	SMIXIN-System-XXXXXX
Password (Key)	11111111

Wash cycle	
Soap quantity	0.5 ml
Soap distribution time	3 s
Scrubbing time	3 s
Minimum rinsing time	4 s
Maximum rinsing time	12 s

4.2 Accessing the system

Compact provides a web application to access the system parameters. The web application address changes depending on the wireless type.

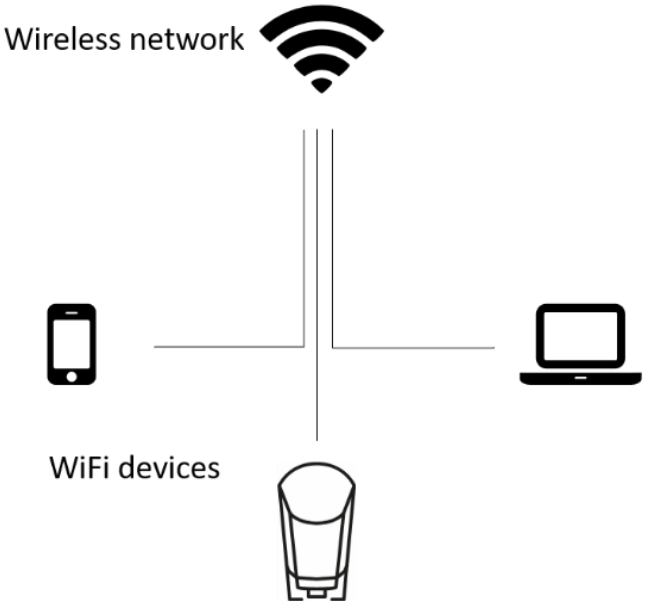
4.2.1 Access point



When wireless type is set as access point, the Compact creates a new network with the name SMIXIN-System-XXXXXX and allows other Wi-Fi devices to connect to this wireless network. To access Compact web application, proceed as follows:

1. Connect your Wi-Fi device to the wireless network named SMIXIN-System-XXXXXX,
2. Open your web browser and type http://192.168.222.1,
3. Login with the default password 11111111.

4.2.2 Client mode



When wireless type is set as client, Compact is connected to an existing network. To access Compact web application, proceed as follows:

1. Contact the wireless network administrator to get the IP address of the Compact.
2. Open your web browser and type the IP address of the Compact
3. Login with the default password 11111111.

4.3 Configuring the system

After entering the password in the log in window you are ready to inspect the system status and statistics and to change and save the parameters of the Compact. The menu has the sections "Cycle Parameters" and "System parameters".

In "Cycle Parameters" you can adjust the main parameters of the hand washing cycle.

In "System parameters", you can find detailed information about the system version and state and adjust various system parameters like: language, password, time, network, level thresholds and many more.

NOTE: Make sure to save after having changed parameter values.

4.4 Statistics

In the section "Statistics" you can view statistics on the Compact usage since the last time statistics were reset.

For additional analysis on the usage full raw data can be downloaded in CSV format. To download the raw data file, click on the “Download raw data” button.

To reset statistics, click on the “Reset” button in section “Advanced” of “System parameters”.

NOTE: The total number of hand-washing cycles since first installation is provided in the section "System parameters".

4.5 Updating the firmware

Smixin provides regular system updates for Compact to improve security, add features or to solve bugs. You can update the firmware by proceeding as follows:

1. Connect your computer to the WLAN of the system (See chapter 4.2 Accessing the system),
2. Go to the section "System parameters",
3. Click on button Advanced Parameters “Show”,
4. Click on button Update system “Select”,
5. Select the file containing the system update,
6. Click on button Update system "Upload".

The latest official update is always available on the Smixin website: http://www.smixin.com/support

5 Status light and errors

5.1 Status lights

System status is displayed through two status lights oriented to the sink, using a certain color code. This code is described below.

NOTE: Blue light generally indicates issues that can be solved by service staff. Red light generally indicates issues that require intervention by technical maintenance staff.

5.1.1 Blue light blinks slowly (once every second)

- Soap is low

The soap level is low and will need to be refilled soon.

5.1.2 Blue light constantly on

- Soap is critical or
- Soap (SMU) is not detected

Check if there is enough soap in the bag (see chapter 6.3 Insertion of soap bag) and check if the SMU is properly placed on the Docking Station and if the Docking Station is properly closed.

5.1.3 Blue light blinks quickly (3 blinks and 1 pause)

- Cleaning mode is active

When the cleaning mode is active, the hand-washing is disabled. The cleaning mode will automatically end after the timeout period (see chapter 6.2.1 Cleaning mode).

5.1.4 Red light blinks slowly (once every second)

- Software or hardware warning

A potential software or hardware problem has been detected, but the hand-washing is still possible. Access the system menu (4.2 Accessing the system), check the system status and plan a technical maintenance to further analyse the cause and eventually repair the system.

5.1.5 Red light constantly on

- Software or hardware error

A software or hardware problem has been detected. Depending on the error, the hand-washing can be blocked or still be possible. Access the system menu (4.2 Accessing the system), check the system status and plan a technical maintenance to further analyse the cause and repair the system as soon as possible.

5.1.6 Red and blue light constantly on

- Software update or reset ongoing

The software is being updated or executing a reset (e.g. statistics, settings). The system will return to normal operation after a few minutes. Do not disconnect the system from mains power or use the system till the update or reset is finished.

5.2 Troubleshooting

5.2.1 Status lights on

See chapter 5.1 Status lights.

5.2.2 No function

Check if the system is connected to mains power.

Check if the docking station window is stained

Disconnect the system from mains power, wait for 5 seconds and reconnect the system again.

Contact your service partner or Smixin.

5.2.3 No / insufficient amount of water

Check if water supply is turned on.

Check if there is water leakage.

Check if the system settings are correct.

Contact your service partner or Smixin.

5.2.4 No / insufficient soap emulsion

Check whether there is enough soap in the soap bag.

Check if the soap bag was installed correctly.

Check if the soap bag is already open for more than 6 months.

Check if the system settings are correct.

Check if the problem persists with a new soap bag.

Contact your service partner or Smixin.

5.2.5 Water leakage

Immediately disconnect the system from mains power (be careful to avoid electrical shock) and turn off the water supply.

Contact your service partner or Smixin.

5.2.6 Soap leakage

Remove the soap bag and clean up the leaked soap inside and around the system.

Install a new soap bag and check if the system works normally.

Plan a technical maintenance to analyze the extent of the soap leakage and to potentially change the docking station or other electronic parts to prevent potential problems due to corrosion.

6 Maintenance, service and cleaning

6.1 Organization schedule

6.2 Cleaning

Clean the surfaces of the Compact regularly. To ease cleaning a cleaning mode can be activated (see 6.2.1 Cleaning mode) on most systems.

After opening the cover, clean the inside of the system using a soft tissue. Remove all dust and other particles that are present.

⚠ CAUTION

Inappropriate Cleaners

- Scratches and discolorations are possible!
- DO NOT use abrasive cleaners.
- DO NOT use abrasive sponges.

6.2.1 Cleaning mode

The cleaning mode offers the possibility to temporarily disable the hand detection to avoid accidental triggering of wash cycles during cleaning. It can be activated on the Compact, by fully covering the sensor area of the Compact with a hand for a few seconds.

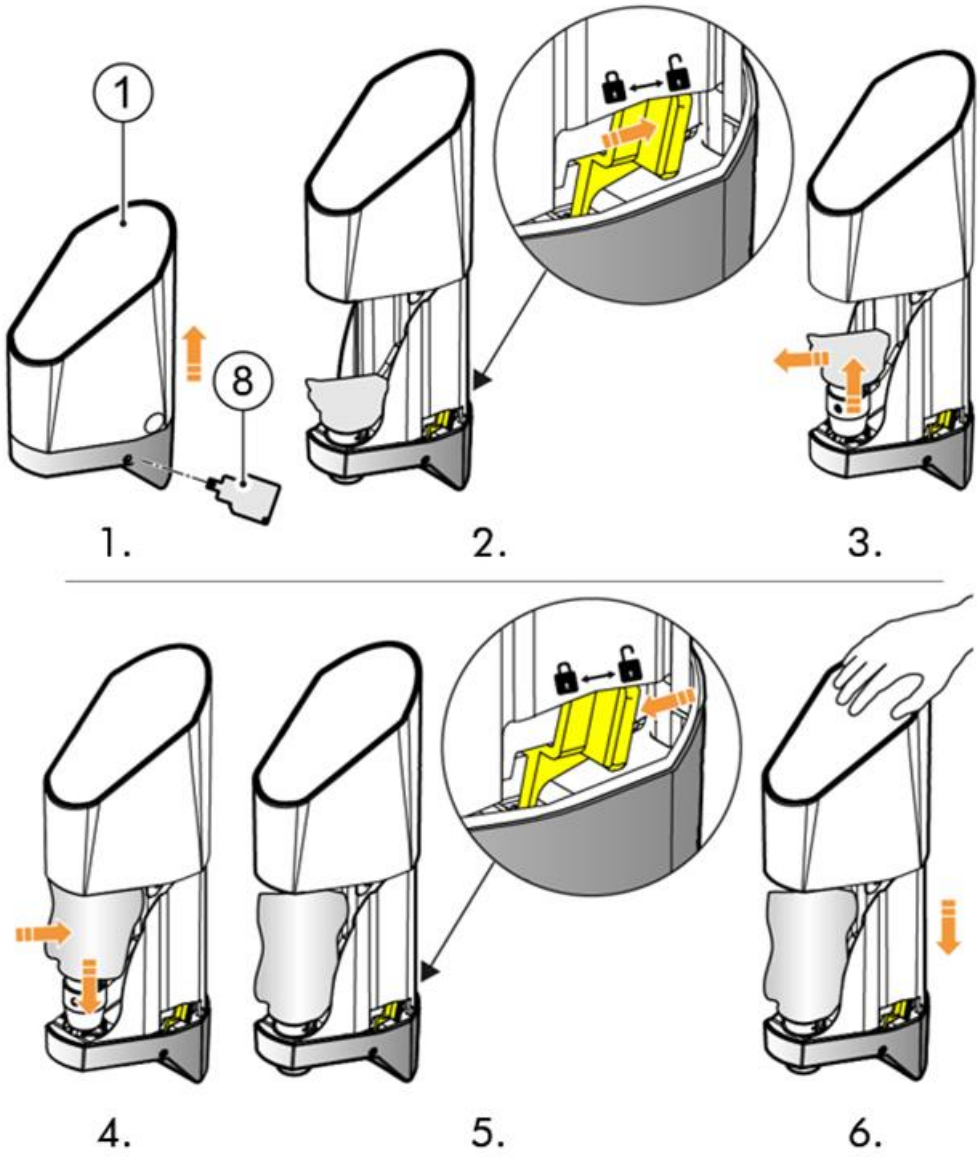
In the cleaning mode, the blue light will repeatedly blink 3 times in a row followed by a pause (see 5.1 Status lights) and hand detection is disabled.

After a timeout, the cleaning mode disables, and hand detection is enabled again. The timeout can be configured in the system menu. By default, it is set to 60 seconds.

NOTE: The cleaning mode is disabled by default and must be enabled in the system menu if desired.

NOTE: On some installations (special sink, environmental lightning, …) it may be impossible to activate the cleaning mode because the optical signal is disturbed too much.

6.3 Insertion of soap bag



1. Open the Compact with the key (8),
2. Push the Yellow Lever towards the back of the system to unlock the Docking Station,
3. Take the empty soap pouch out by pulling upwards before taking it out of the system,
4. Delicately insert the new soap pouch by putting the mixing head in the receptacle,
5. Lock the Docking Station by pulling the Yellow Lever towards you,
6. Press evenly on the top of the Compact to close it. Wait 20 seconds and trigger a cycle to check that the system runs correctly.

6.4 Maintenance

6.4.1 Replacement of O-ring

The rubber O-Ring which tightens the water-in connection in the docking station needs to be replaced when it shows signs of leaking or aging every two years.

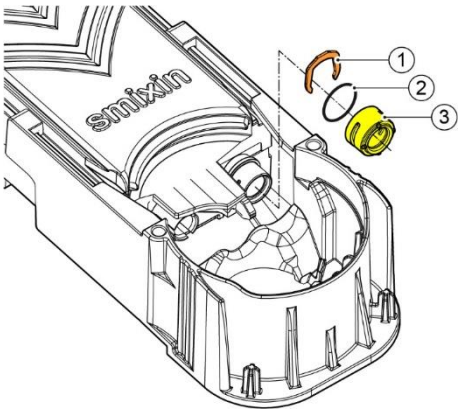


Figure 1: Docking Station

1 Clamp

2 O-Ring

3 Hat

To replace the O-Ring proceed as follows:

1. Open the Docking Station,
2. Remove clamp (Pos. 1),
3. Remove hat (Pos. 3),
4. Exchange old O-ring (Pos. 2) with a new one,
5. Put back hat (Pos. 3),
6. Put back clamp (Pos. 1).

6.4.2 Maintenance after a long downtime

Please perform all maintenance tasks listed below:

- clean the Compact,
- check water connections,
- check power adaptor and cables,
- insert a new soap bag,
- Let water flow out for one minute using the cleaning mode.

7 Transport, storage and disposal

7.1 Removing, packing, loading

To remove the Compact, proceed as follows:

1. Turn off the water supply,
2. Activate the cleaning mode button to release water in the pipes,
3. Remove the soap bag from the Compact,
4. Disconnect the power supply from power mains,
5. Disconnect the water supply. Use a bucket to dispose of remaining water in the pipes,
6. Disconnect the TapModule cables from the BlackBox,
7. Remove the fixation kit used to fix the Compact to the counter,
8. Remove the Compact from the counter,
9. Remove the BlackBox from the wall,
10. In case you fix the WaterIn module: Unfix the WaterIn module.

Always use the original packaging to pack the Compact and the other components to protect them from damage.

7.2 Transport

Avoid any shock, significant vibrations and damage to the Compact during transport.

Always pack the system in its original packaging.

7.3 Storage

The ambient conditions must meet the following requirements:

- ambient temperature between 0 and 50 °C,
- relative air humidity < 80 %

7.4 Environmental protection and disposal

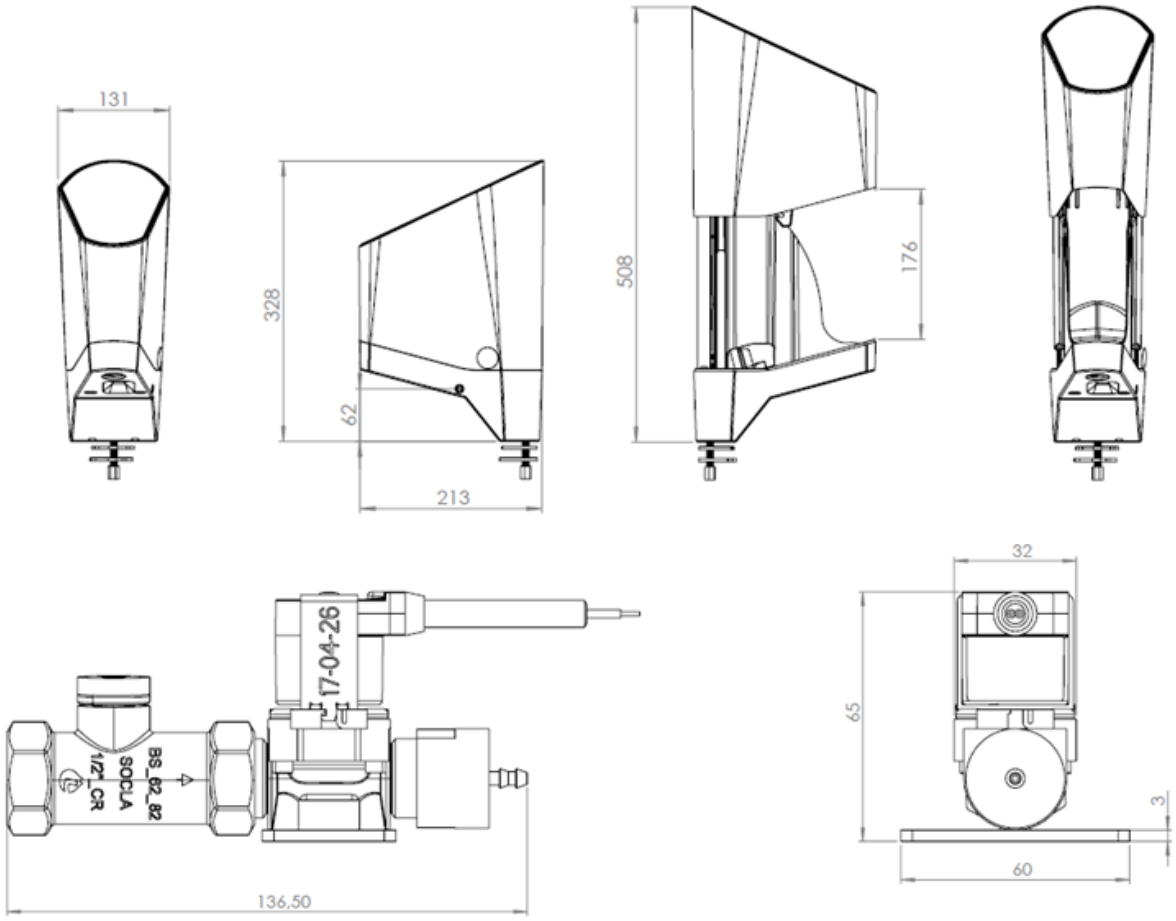
Dispose of packaging material and old equipment in compliance with relevant safety and environmental regulations.

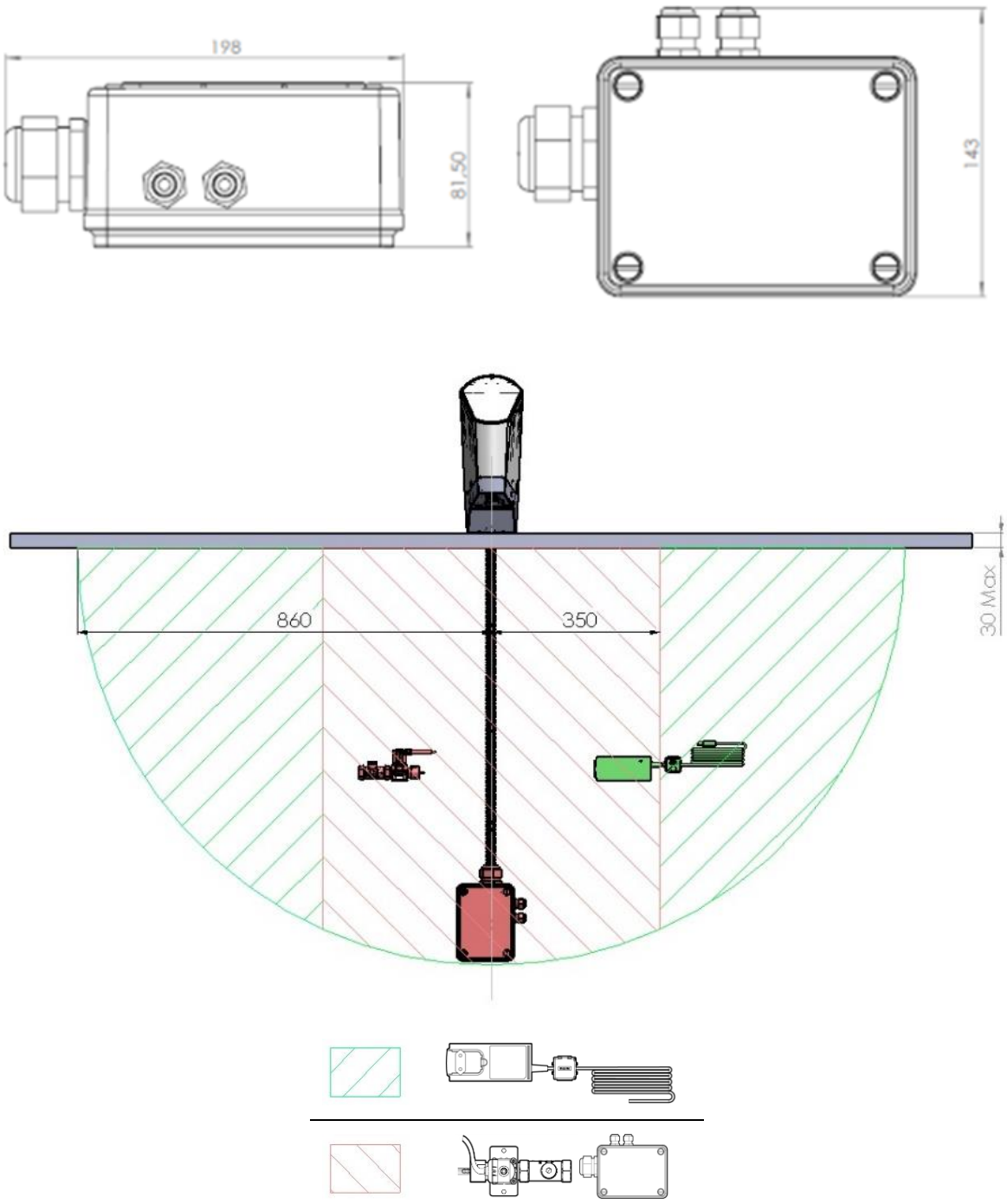
When the Compact is outdated and has to be decommissioned, the applicable legal provisions and regulations regarding disposal must be observed.

It is important to dispose of recyclable materials properly and with consideration given to our environment.

Please contact your waste disposal centre if you are in any doubt.

8 Technical data





9 Terminology

SMU Smart Mixing Unit