

Operating instructions



Operating instructions

for Winterhalter UC Series undercounter warewashers
(translation of the original German operating instructions)

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1 About this manual

These operating instructions will give you a quick overview of the main functions and safe operation of your warewasher. Keep the operating instructions accessible.







Please note carefully the safety notes listed here (► 3).



On our website www.winterhalter.com/download-centre you can find the operating instructions in electronic form too.

The following symbols are used in these instructions:

Symbol	Meaning
 Danger	Warning against potential serious or fatal injuries to persons if the precautionary measures described are not taken.
 Warning	Warning against potential minor injuries to persons or material damage if the precautionary measures described are not taken.
 Caution	Warning against possible defects or damage of the product if the precautionary measures described are not followed.
	Carefully read through the safety notes and operating instructions in this manual before working with this machine.
IMPORTANT	Important information is provided here.
INFO	Useful information is given here.
➤	This symbol indicates instructions.
⇒	This symbol indicates the results of your actions.
–	This symbol indicates itemisations.
►	This symbol refers to a chapter with more detailed information.

2 Intended use

- This warewasher is a technical device for commercial use and is not intended for private use.
- Use the warewasher only for washing dishes, cutlery and glasses for catering and similar use.
- Always operate the warewasher only as described in these operating instructions.

2.1 Improper use

- The water in the warewasher may not be used as drinking water.
- Children must not play with the machine.
- Do not carry out a wash without a wash rack.
- Do not make any changes, additions or modifications to the device without the approval of the manufacturer.
- Winterhalter Gastronom GmbH assumes no liability for any damage caused by improper use of the warewasher.

3 Safety notes

Winterhalter Gastronom GmbH assumes no liability or warranty in the event of non-compliance with these safety and operating instructions.

3.1 General safety notes

- Read through the safety notes and operating instruction carefully.
- Retain the operating instructions for future reference.
- Only use the warewasher after you have read and understood the quick guide and the safety notes.
- Allow the Winterhalter Customer Service Department to provide information about the operation and functioning of the warewasher.
- Train the operating personnel appropriately regarding handling the machine refer them to the safety notes. Repeat the training sessions at regular intervals to prevent accidents.
- Do not climb or sit on the opened hinged door.
- Operate this machine only when it is in perfect condition.
- A damaged or leaking machine may endanger your safety. In the event of defects, switch off the machine immediately. Switch the machine on again only when the defect has been remedied. Switch off the on-site mains switch. Only then is the machine without power.
- Contact your installer or electrician if the on-site water or electricity supply is the cause of a malfunction.
- If another fault occurs, notify an authorised service technician or your dealer.
- Once the work is complete, close the on-site water supply.
- Once the work is complete, switch off the on-site mains disconnecter.

3.2 Electrical safety

- The electrical safety of this machine is guaranteed only if it is connected to a correctly installed protective circuit and a residual current circuit breaker. It is crucial that this basic safety requirements are tested and, in case of doubt, that the on-site installation is checked by a qualified electrician.
Winterhalter cannot be held responsible for damage caused by a missing or broken protective conductor (e.g. electrical shock).
- Do not open any machine covers or machine parts if doing so requires tools. There is a risk of electric shock.
- For your safety, test the on-site residual current circuit breaker (FI) regularly by pressing the test button.

3.3 Maintenance and repair work

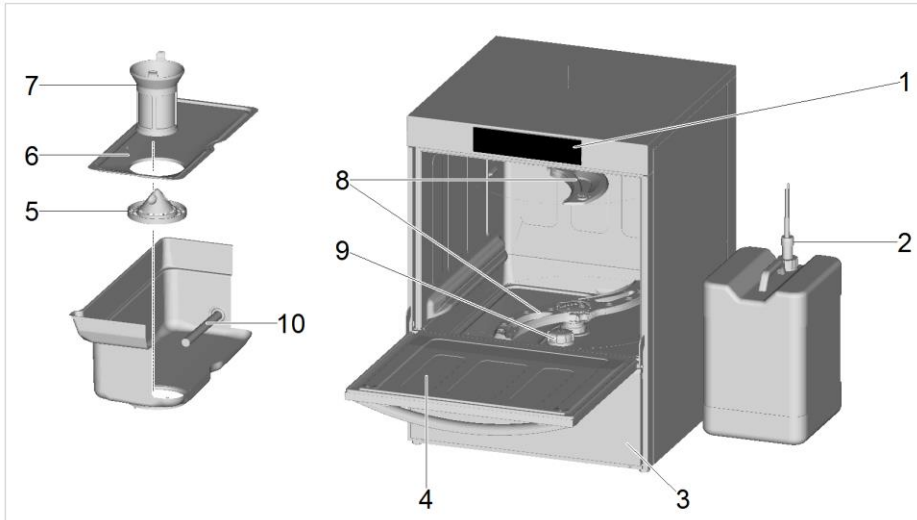
- Maintenance work and repairs may only be carried out by authorised Winterhalter service technicians. Improper maintenance or repairs may cause significant danger to the user, for which Winterhalter is not liable.
- When carrying out installation and maintenance work, unplug the machine from the mains supply. Electrical elements of the machine contain voltage until disconnecter from the mains supply.
- Only original Winterhalter spare parts may be used for maintenance and repairs. If original spare parts are not used, the warranty is invalidated.
- If the mains cable of this machine is damaged, it must be replaced by Winterhalter or its Customer Service or another qualified person in order to prevent hazards. The mains cable must be an H07 RN-F type or equivalent.

4 Before working with the machine

- Have the machine set up by an authorised service technician or your dealer.
- Have the machine connected according to local standards and the regulations of the authorised technicians (water, waste water, electrical system).
- After connecting the water and the power properly, contact the relevant Winterhalter engineer or your dealer for the commissioning of the machine and for providing training in its operation. Have yourself and your operating personnel trained in the operation of the machine.

5 Machine description

5.1 Overview



Item	Description
1	Display
2	Suction tube (optional)
3	Integral storage tank for rinse aid and detergent (optional)
4	Door
5	Filter bottom
6	Strainer
7	Filter cylinder
8	Wash field
9	Integral water softener (optional)
10	Tank heating element

5.2 Mode of operation

After the machine is switched on, the boiler and the tank are filled and heated up to the operating temperature. Once the rated temperatures are reached, the machine is ready for use.

The machine is fully automatic with programmes consisting of three steps: Wash, Drain and Rinse.

5.3 Options

<p>Energy Machine with a heat exchanger <i>Requirement:</i> Connect the machine to the cold water.</p>
<p>UC-S Excellence-i(Plus), UC-M Excellence-i(Plus) Machine with an integrated reverse osmosis module <i>Requirement:</i> Connect the machine to the cold water.</p>
<p>Cool Machine with cold water rinsing, can be switched to hot water rinsing. <i>Requirement:</i> Connect the machine to the cold water.</p>
<p>Integral water softener</p>
<p>PAY PER WASH You can find more information on www.pay-per-wash.com.</p>
<p>CONNECTED WASH You can find more information on www.connected-wash.com.</p>

5.4 Customer-specific modifications

The machine controls, within certain limits, can be adapted to individual needs.

Examples

- Adjusting the washing pressure to the items being washed
 - Lengthening or shortening programme run times
 - Hiding washing programmes
- Contact an authorised service technician to make any changes.

You can make the following adjustments yourself:

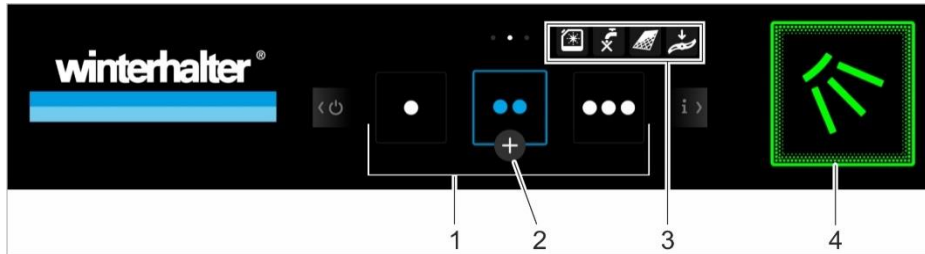
- Deactivate audio alerts
 - Adjust the pictograms of standard programmes
- Proceed in accordance with chapter 7.

6 General operation

6.1 Display

Operating the display is similar to operating the display of a smartphone. The display responds to light touches. Therefore, only operate the display with your fingers; do not use any sharp objects.

INFO The display and start button can also be operated with wet hands or rubber gloves.



Item	Description
1	Standard washing programmes
2	Selection of additional programmes
3	Display area of error pictograms
4	Start button

Screen saver

The display is dimmed if it is not used for a long time. Rinsing can also be carried out when the display is darkened.

6.2 Start button

The colours have the following meanings:

Colour	Meaning
Not lit	Machine is switched off.
Orange	Machine is filling and heating up.
Green	Machine is ready for use.
Blue	Washing programme is running.
Flashing green	Washing programme has ended; door has not yet been opened.
Red	The machine no longer washes because there is a serious error.

Only for Energy model machines

Flashing green-blue	Warm, humid air is being extracted. The washing programme is completed only when the start button flashes green.
---------------------	--

6.3 Menu levels

Operating personnel have access to the following 3 levels:

- Main level (► 6.3.1)
- 'dishwashing staff' menu level (► 6.3.2)
- Chef's PIN menu (► 7)

6.3.1 Main level

The main level appears automatically with image B when the machine is ready for operation.

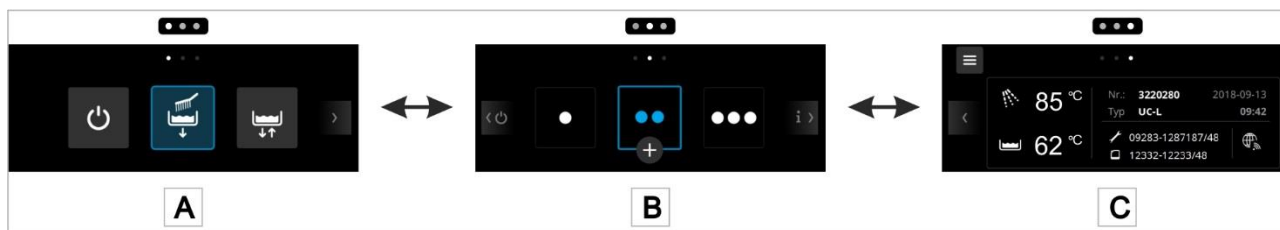
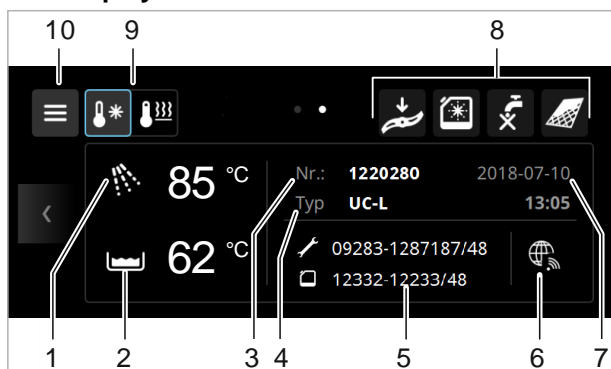


Image	Functions
A	Switching off (► 9.4)
	Self-cleaning programme (► 11.1)
	Tank water exchange programme (► 9.3.6)
B	Standard washing programmes (► 6.3) Additional programmes (► 6.5)
C	Info display

Info display



UC-x Cool

	Cool has been activated and can be deactivated in the Info screen.
	Cool has been deactivated and can be activated in the Info screen.

Item	Description
1	Current rinse temperature
2	Current tank temperature
3	Machine serial number
4	Machine model
5	Telephone number for the service technician and chemical supplier
6	CONNECTED WASH (optional): Machine is connected to the Internet
7	Date / time
8	Display area of error pictograms
9	Cool (optional): Switching the rinse temperature
10	Access for dishwashing staff menu level / to the PIN menu

6.3.2 Dishwashing staff menu level

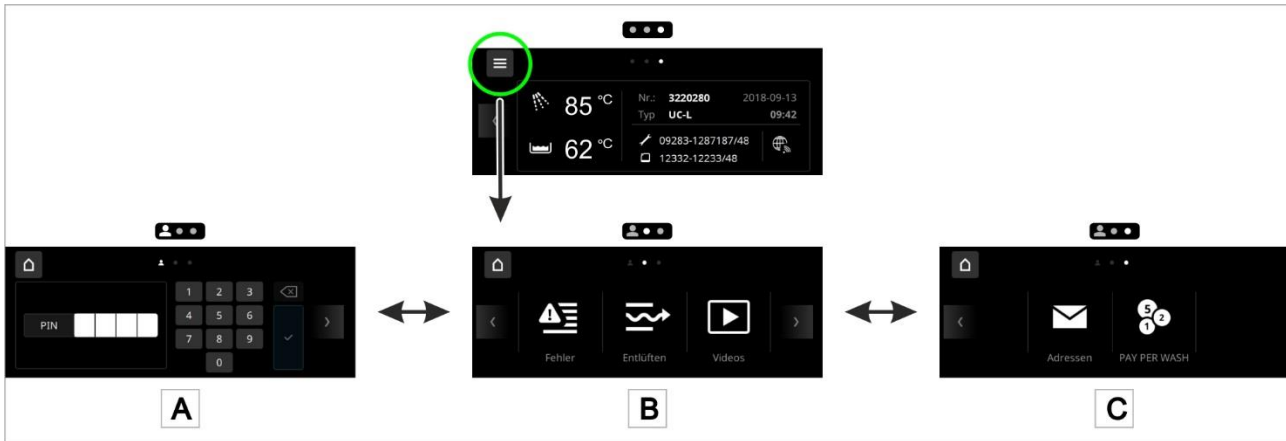
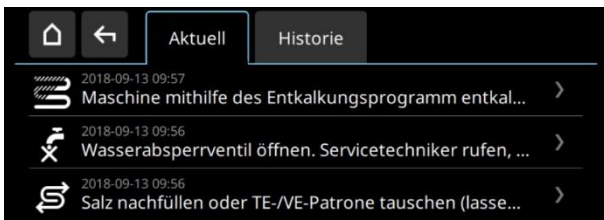


Image	Functions	
A	Access to the chef's PIN menu (▶ 7)	
B		Errors
		Priming
		Videos
C		Addresses
		Pay PER WASH menu (optional) You can find more information on www.pay-per-wash.com .

Errors

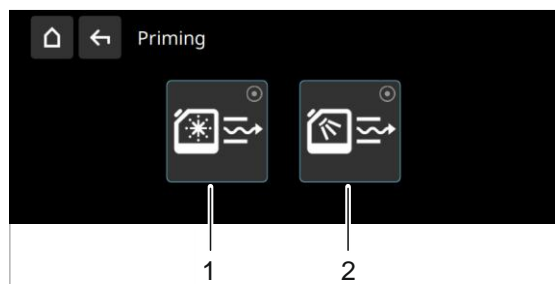


Current	Current errors
History	Rectified errors

- Tap the fault message.
⇒ A detailed fault message appears.

Priming

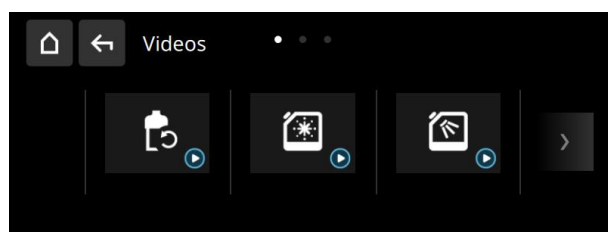
Dosing devices must be primed if air has entered the dosing hose. This occurs when the storage tank is not refilled in time or the containers are not replaced in time.



	Rinse aid dosing device
	Detergent dosing device

- Press button 1 or 2.
 - ⇒ The button turns white and the dosing device is primed (max. 120 s).
- After approx. 30 seconds, press button 1 or 2.

Videos

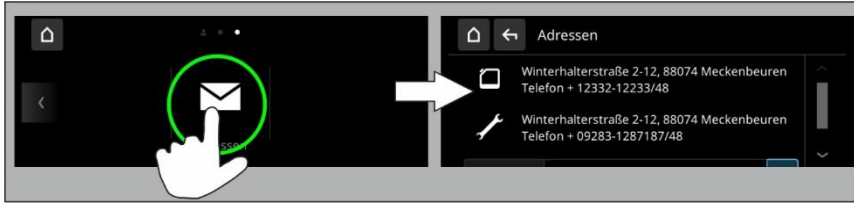





The following videos are available:

	Replacing the activated carbon filter (UC Excellence-i(Plus))
	Refilling the rinse aid or replacing the container
	Refilling the detergent or replacing the container
	Refilling the regeneration salt
	Self-cleaning programme
	Activating the additional programme
	Changing the tank water

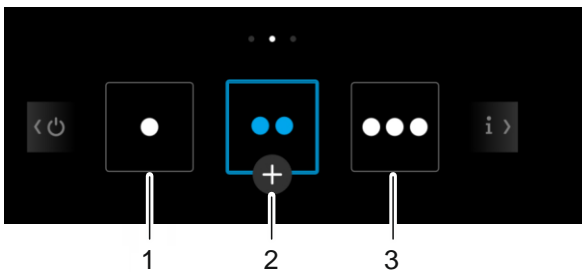
INFO The video can be stopped by tapping the display.

Addresses



	Supplier for rinse aid, detergent, etc.
	Service technician
	Release code (only for service technician)

6.4 Washing programmes



Programme 2 is pre-selected (blue frame) as soon the machine is ready. The following programmes are available, irrespective of the degree of soiling:





	Programme 1	Programme 2	Programme 3
Soiling	Light	Normal	Severe

The authorised service technician can adjust programmes to your dishes (temperature, rinsing pressure, dosing and programme length). The service technician can also hide programmes on request.

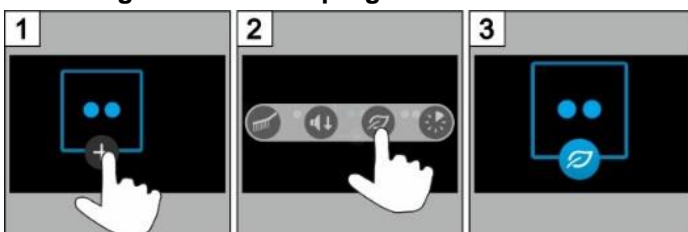
INFO The display of washing programmes on your warewasher may differ. You can select from a large selection of images the pictogram that is optimally suited to the wash items and level of soiling (► 7.6).

6.5 Additional programmes

For each washing programme the following additional programmes are available:

	Intensive programme		ECO programme
	Silence programme		Short programme

Activating the additional programme

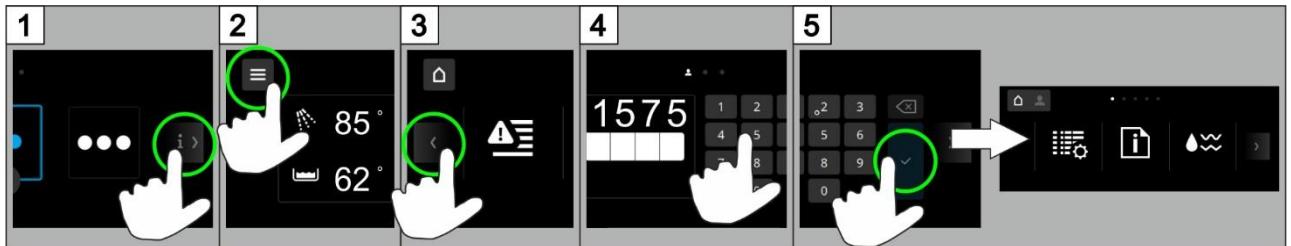


The additional programme remains stored until it is disabled or another additional programme is selected.

7 Chef's PIN menu

INFO If you switch to the PIN menu, the machine switches off. After leaving the PIN menu, the machine must be switched back on.

Accessing the PIN menu



INFO If you have entered your PIN incorrectly three times, the input is locked for 10 minutes.

Menus

	Hygiene logbook	▶ 7.1		Brightness	▶ 7.8
	Operating data	▶ 7.2		Sounds	▶ 7.9
	Water hardness	▶ 7.3		Date / time	▶ 7.10
	Dosage	▶ 7.4		Language	▶ 7.11
	Timer	▶ 7.5		Units	▶ 7.12
	Pictograms	▶ 7.6		CONNECTED WASH	▶ 7.13
	Descaling	▶ 7.7		Water back-flow counter	▶ 7.14

INFO The number of menus depends on the machine version.

Navigation

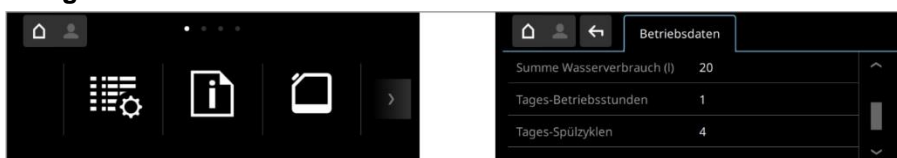
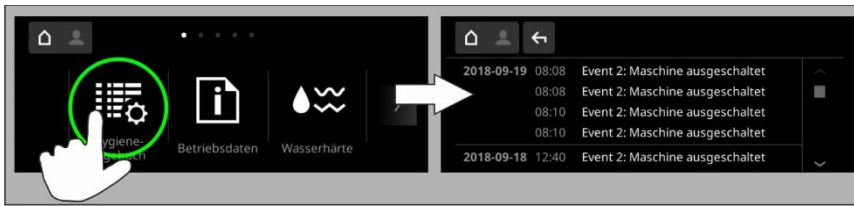


Image	Explanation
	Exit the menu
	'Chef menu' symbol
	Continue to the next window by tapping or swiping
	One level back

7.1 Hygiene logbook

Machine events are in the hygiene logbook.

Calling up the menu



7.2 Operating data

Calling up the menu



INFO Water consumptions are reference values and are not based on precise measurements.

7.3 Water hardness

INFO Only for machines with an integral water softener.

Calling up the menu



Factory setting	20 °dH
Maximum value	31 °dH

The service technician enters the inlet water hardness during the machine commissioning.

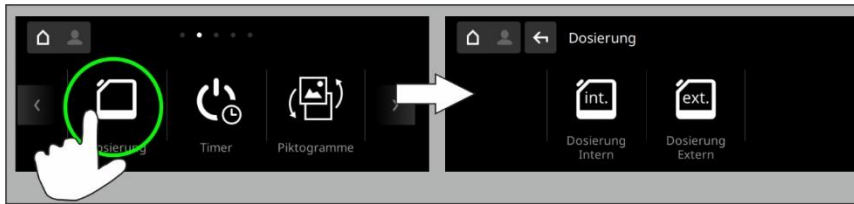
➤ Enter inlet water hardness in °dH.



Calculation table

		°dH	°e	°TH	mmol/l
German hardness	1°dH=	1.0	1.253	1.78	0.179
English hardness	1°e=	0.798	1.0	1.43	0.142
French hardness	1°TH=	0.560	0.702	1.0	0.1
mmol/l	1mmol/l=	5.6	7.02	10.00	1.0

7.4 Dosing





Calling up the menu



	Internal dosing (▶ 7.4.1) For integral dosing devices
	External dosing (▶ 7.4.3) For external dosing devices

7.4.1 Internal dosing



	Dosing detergent
	Dosing rinse aid
	Washing programmes
	Chemicals database (▶ 7.4.2)

Setting the dosing amount:

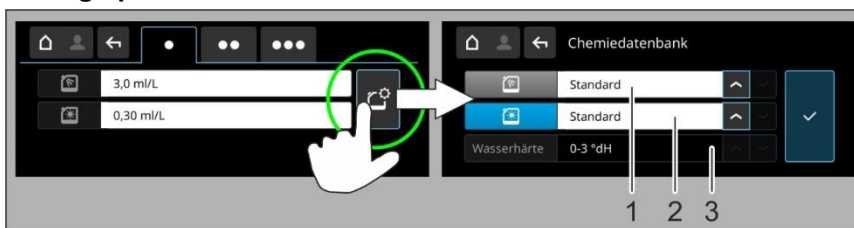
- Select the desired washing programme.
- Tap in the field with detergent or rinse aid.
- Select the dosing amount.
- Save

7.4.2 Chemicals database

When using Winterhalter rinse aid and detergent, the containers incorporate the information for a detergent group (e.g. DT05) or rinse aid group (e.g. RA01). This information is used as an aid for dosing. However, we recommend that the dosing setting be set precisely by an authorised service technician.

INFO Containers with 'DT' or 'RA' information are not available in all countries.

Calling up the menu



Setting the detergent group (DT)

- Tap field (1).
- Select the desired setting.
- Save.

Setting the rinse aid (RA)

- Tap field (2).
- Select the desired setting.
- Save.

Chef's PIN menu

Setting the water hardness

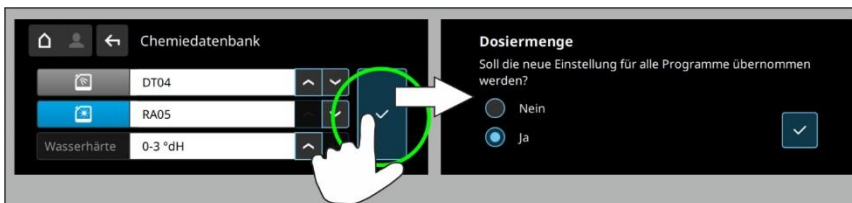
- Tap field (3).
- Select the hardness range.

INFO Calculate and set water hardness in °dH.
Set "0-3 °dH" for machines with a built-in water softener.

Calculation table

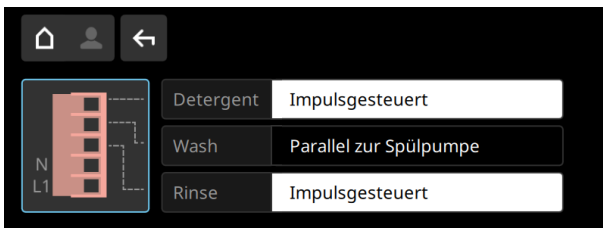
		°dH	°e	°TH	mmol/l
German hardness	1°dH=	1.0	1.253	1.78	0.179
English hardness	1°e=	0.798	1.0	1.43	0.142
French hardness	1°TH=	0.560	0.702	1.0	0.1
mmol/l	1mmol/l=	5.6	7.02	10.00	1.0

Exiting the menu



7.4.3 External dosing

The service technician requires this menu when he connects an external dosing device to the machine (▶ 17).



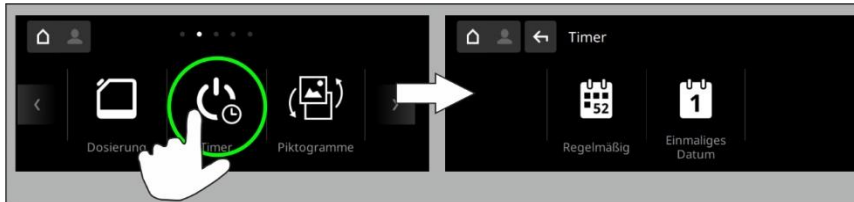
7.5 Timer

The timer can programme the machine to switch on or off automatically at a specific time.

IMPORTANT At the time of automatic start-up the following requirements must be met:

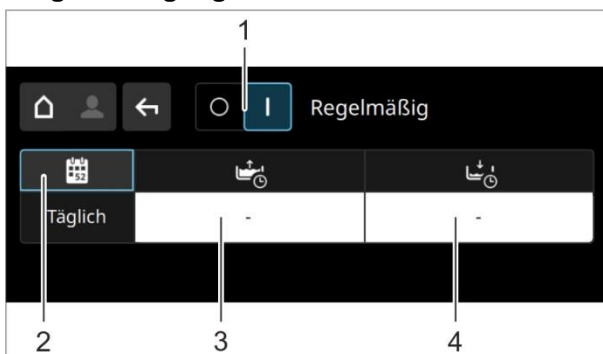
- The door is closed.
- The on-site mains disconnecter is switched on.
- The on-site water supply is open.

Calling up the menu



	Regularly
	Non-recurring date

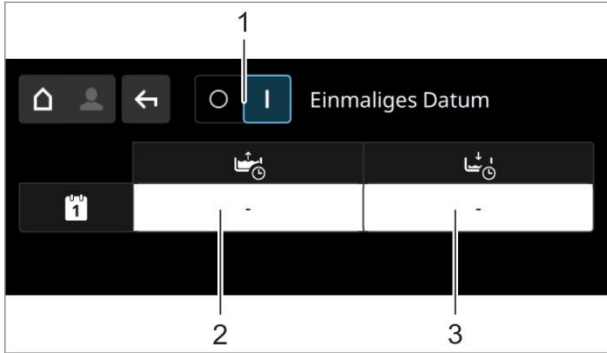
Programming regular time



Item	Description
1	Sliding switch
2	Schedule <ul style="list-style-type: none"> - Daily - Mon-Fri, Sat-Sun - Individual (a different time on every weekday)
3	Time for automatic start-up
4	Time for automatic switch-off

- Tap field (3 or 4).
- Set desired time.
- Save.
- Push the sliding switch (1) to 'I'.

Programming a non-recurring date



Item	Description
1	Sliding switch
2	Date and time for automatic start-up
3	Date and time for automatic switch-off

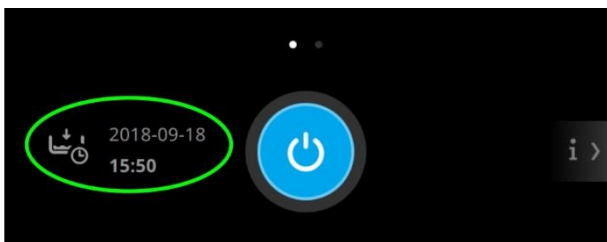
- Tap field (2 or 3).
- Set the desired time and date.
- Save.
- Push the sliding switch (1) to 'I'.

Automatic switch-off sequence

Sequence of sounds	⇒	10 s pause	⇒	Sequence of sounds	⇒	10 s pause	⇒	Sequence of sounds	⇒	10 s pause	⇒	Machine is emptied and switched off using the self-cleaning programme
--------------------	---	------------	---	--------------------	---	------------	---	--------------------	---	------------	---	---

INFO If the door is open during the automatic switch-off, the machine is pumped empty and switched off, but **not** cleaned inside.

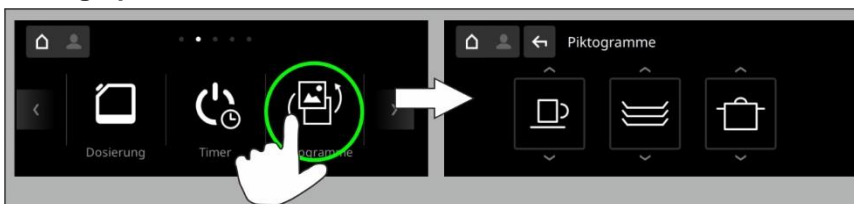
Displaying the programmed time



7.6 Pictograms

This menu allows the specification of pictograms to indicate the three standard programmes.

Calling up the menu



INFO Changing the pictograms has no effect on parameters such as programme length or temperatures.

7.7 Descaling

If the machine is operated with hard water and without water treatment, then the boiler, the machine interior, all the water lines and other components may develop scale.

Grease residues and dirt that remain in the machine can contribute towards an unhygienic interior, while scale can lead to failure of heating elements. Regular removal of these coatings is absolutely essential. Using the descaling programme, you can descale the interior of the warewasher. The water lines and the boiler can be descaled only by an authorised service technician.

For descaling, you need an acid-based descaler suitable for commercial warewashers. We recommend the Winterhalter Descaler A 70 LS.



Danger

- When handling chemicals, observe the safety notes and the dosage recommendations on the packaging.
- Wear protective clothing, protective gloves and protective goggles when handling chemicals.

Ideally, start the descaling programme when the machine is empty and switched off. If the machine is already prepared for use, it will automatically empty first.

Only with an external detergent dosing device:



Warning

Development of chlorine gas

If you mix active chlorine detergent and descaler, chlorine gas is produced. Stop detergent dosing (e.g. remove the suction tube or switch off the dosing device).

INFO Integral detergent dosing device in the machine will be disabled automatically in the descaling programme.

Starting the descaling programme



- Follow the instructions on the display.



Warning

Descaler causes corrosion

The descaling solution must not remain in the machine. If you switch off the machine when the descaling programme is in progress or if you terminate the programme, the machine must be emptied, refilled and emptied again. Use the self-cleaning programme for this.

7.8 Brightness

The brightness can be adjusted to match the screen display to the lighting conditions in your kitchen.

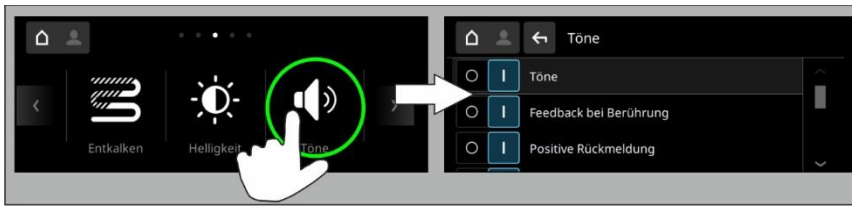
Calling up the menu



7.9 Sounds

Turn the sounds on or off.

Calling up the menu

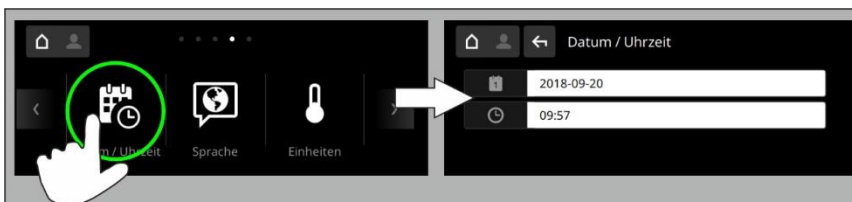


Item	Description
1	Turn all sounds on or off
2	Turn individual sounds on or off

7.10 Date / time

Enter the current date and the current time.

Calling up the menu

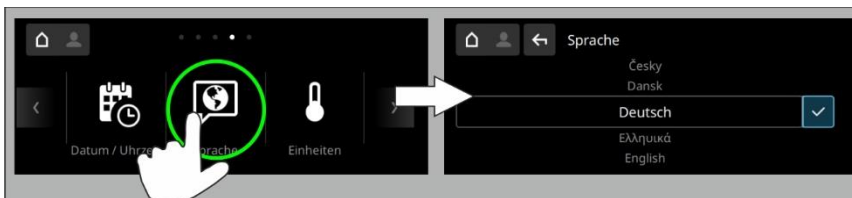


INFO Time must be changed for the summer/ winter time changeover.

7.11 Language

Set the language in which to display texts on the screen.

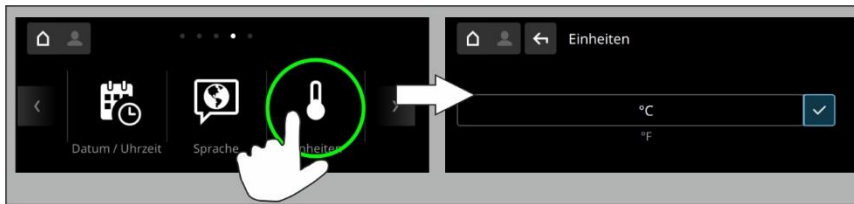
Calling up the menu



7.12 Units

Here you can change the temperature display unit.

Calling up the menu



7.13 CONNECTED WASH

Calling up the menu



Activating CONNECTED WASH



➤ Select LAN or WLAN.



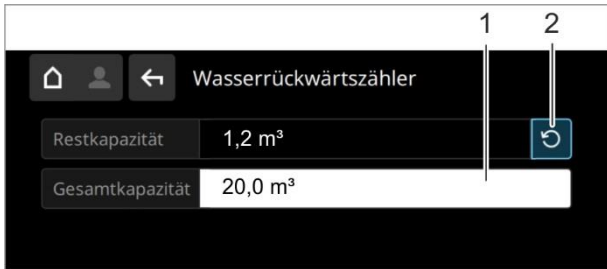
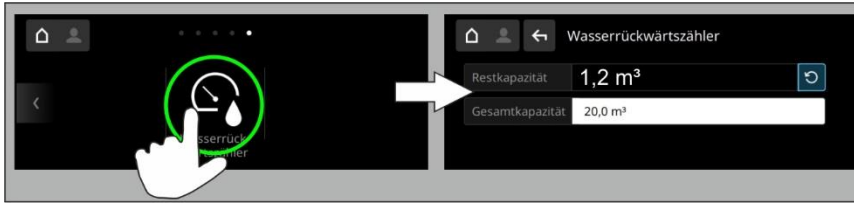
More detailed information and instructions for all subsequent steps is available at:
www.connected-wash.com

7.14 Water back-flow counter



The water back-flow counter needs to be reset if, on machines with partial or full demineralisation cartridge, the accompanying symbol appears on the display.

Calling up the menu



Item	Description
1	Set the total capacity
2	Reset the water back-flow counter

Partial demineralisation cartridge

- Replace the partial demineralisation cartridge.
- Reset the water back-flow counter.

Full demineralisation cartridge

- Have the resin of the full demineralisation cartridge replaced by an authorised service technician.
- Reset the water back-flow counter.

8 Rinse aid and detergent



Danger

Possible risk of chemical burn

- Wear protective clothing, protective gloves and protective goggles when handling chemicals.
- When handling chemicals, observe the safety notes and the dosage recommendations on the packaging.



Caution

Use only products that are suitable for commercial warewashers. Such products are appropriately marked. We recommend Winterhalter products. These are especially adapted to Winterhalter warewashers.

INFO A transfer strip is available for connecting external dosing devices (► 17).

8.1 Rinse aid

Rinse aid is necessary to ensure that water on the items being washed drains off after washing as a thin film. This ensures that the wash items dry quickly.

Rinse aid is automatically dispensed using a dosing device.

8.2 Detergent



Caution

- Do not use acidic detergents.
- Do not use any foaming products (e.g. manual washing-up liquid) for treating the items being washed, as these will build up in the machine.

A detergent is necessary to ensure that the leftovers and dirt on the wash items are cleaned.

Detergents can be dosed as follows:

- Manually as detergent powder
- Automatically as liquid detergent

INFO The detergent dosing device is not included in the scope of delivery of all machines.

8.2.1 Manual dosing detergent powder

IMPORTANT Only deposit detergent powder when the machine is ready for operation.

- After each dosing (pre- and post-dosing), start the wash cycle immediately to mix the detergent powder with the water.
- Adhere to the dosing instructions on the packaging of the detergent.

	UC-S	UC-M/-L/-XL
Tank capacity	9.5 l	15.3 l
Pre-dosage △ Dosing of 3 g/l	30 g	45 g
Rinse water volume per wash cycle	2.0 l	2.2 l
Post-dosing every 5 wash cycles	30 g	33 g

8.3 Refilling the detergent or rinse aid

A lack of chemicals is promptly detected and indicated on the display:

	Lack of detergent
	Lack of rinse aid

- Refill chemicals in the next 20 seconds so that the wash result is not affected.

IMPORTANT If the chemicals are not refilled in time, the dosing device will be deactivated. Air also gets into the dosing hose and the dosing device must be primed ► 6.3.2).

Rinse aid and detergent



Variant A

External containers and suction tubes



Variant B

Integral storage tanks

8.3.1 Variant A: External containers and suction tubes



Caution

- Do not place the suction tube for the rinse aid in the container with detergent or vice versa.
- Only use the suction tube with sufficiently stable containers. Narrow and tall containers can tip if you pull on the suction tube.
- Do not pull on the dosing hose or main power cable, as this may lead to a defect.

Optionally, you may receive one or more suction tubes with your machine:



Cap colour	Hose colour	Container
Blue	Blue	Rinse aid
Grey	Transparent	Detergent

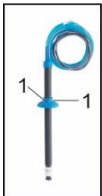
Changing the container



Caution

Possible risk of chemical burn

Wear protective clothing, protective gloves and protective goggles when handling chemicals.



- Take the suction tube out of the empty container.
- Ensure that both vent holes (1) in the caps are open.
- Place the suction tube in the new container.
- Slide the cap downwards until the container opening is closed.

8.3.2 Variant B: Integral storage tanks



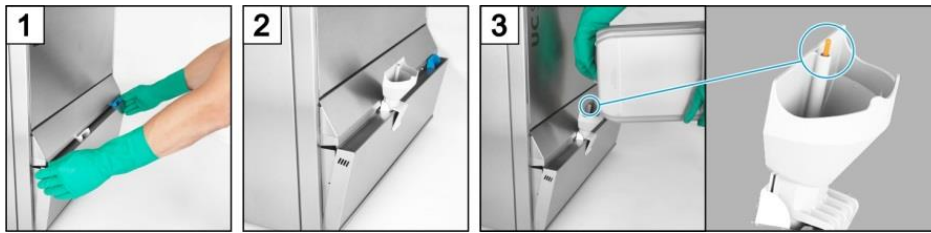
Caution

Do not fill rinse aids in the storage containers for detergents and vice versa.



Flap colour	Storage tank
White	Detergent
Blue	Rinse aid

Pour in liquid detergent and rinse aid



- 4** ➤ Remove the funnel.
- 5** ➤ Fold back lower body panels.
- 6** ➤ Wash the funnel in the warewasher to rinse off any chemical residues.

8.4 Changing the chemical product (rinse aid or detergent)



Possible risk of damage to the dosing device

Do not mix different products. Crystallisation can destroy the dosing device.

As a rule, a new product requires that the dosing device be rinsed with water and re-configured.

- To attain good wash results, assign the required work to an authorised service technician.

If this is not done, the Winterhalter Gastronom GmbH warranty and product liability will be void.

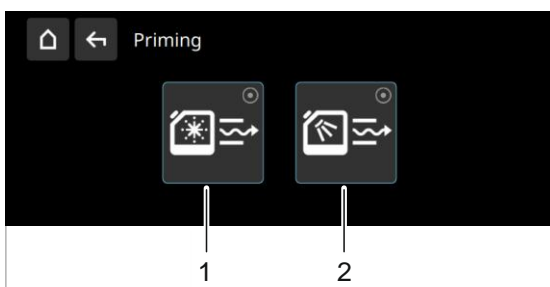
If the chemical product is dosed from external containers, rinse the dosing hoses and the dosing device using water.

Rinsing the dosing tubes and the dosing device with water



- When handling chemicals, observe the safety notes and the dosage recommendations on the packaging.
- Wear protective clothing, protective gloves and protective goggles when handling chemicals.

- Remove the suction tube from the container and place it in a water-filled container.
- Accessing “Priming” menu (► 6.3.2).



	Rinse aid dosing device
	Detergent dosing device

- Press button 1 or 2.
 - ⇒ The button turns white and the dosing device is activated (2 minutes).
 - ⇒ The dosing hoses and the dosing device are rinsed out with water.
- As soon as the button goes dark, place the suction tube into the new container.
- Press button 1 or 2 again.
 - ⇒ The button turns white and the dosing device is activated (2 minutes).
 - ⇒ The water in the dosing hoses and dosing device is replaced by the new chemical product.

9 Operation

9.1 Before switching on the machine



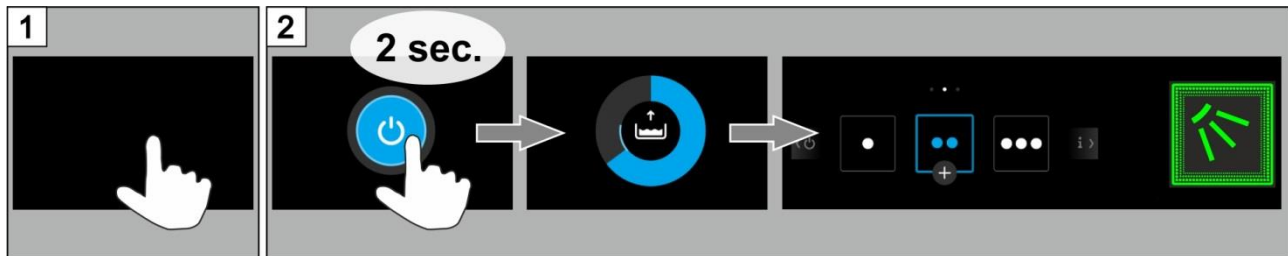
Caution

Possible risk of damage to the wash pump by suction of objects e.g. cutlery
Operate the machine only when the filter system (image 6) is fully inserted.



IMPORTANT Dosing devices must be primed when air has entered the dosing hose because the containers were not exchanged or refilled in time (► 6.3.2).

9.2 Switching on the machine



The machine is ready for operation as soon as the start button lights up green.

INFO After tapping the dark display (image 1), it can take approx. 20-30 seconds for image 2 to appear.

9.3 Washing



Warning

Possible risk of scalding from hot wash water

- Keep children away from the warewasher. The interior holds wash water at a temperature of approx. 62 °C.
- Do not open the door while the machine is washing. There is a risk of the hot wash water spilling out. Stop the washing programme before doing so (► 9.3.5).

Possible risk of injury

- Arrange sharp, pointed utensils to keep them from causing injury.



Caution

- Do not use the warewasher to wash electrically heated devices or parts made of wood.
- Do not wash parts made of plastic if they are not heat- and lye-resistant.
- Wash parts made of aluminium, e.g. pots, containers or trays, only with a specially suitable detergent, to avoid black discolorations.

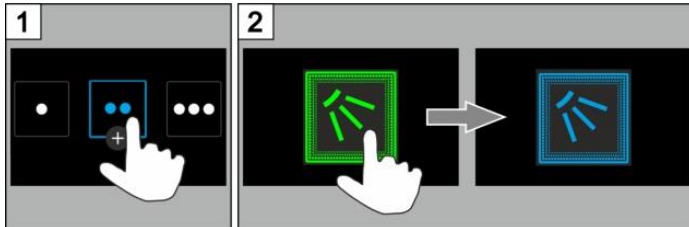
9.3.1 Arranging the wash items in the wash rack

- Remove large leftovers.
- Pour out beverage residues (outside the machine).
- Rinse off ash with water.
- Place plates with their upper surface facing forwards.
- Place glasses, cups, bowls and pots rim down.
- Wash cutlery either standing in the cutlery holder or lying in a shallow rack. Make sure that the cutlery is well spaced.

Useful tips

- Do not overload racks, to allow the wash water to reach all dirty surfaces.
- Soak the cutlery until it is rinsed.
- Space the glasses to prevent them from rubbing against each other. This will avoid scratches.
- For tall glasses, choose a rack with appropriate divisions, so that the glasses are held in a stable position.
- Do not polish glasses, cutlery and dishes. Germs and bacteria exist even in fresh multi-purpose cloths.

9.3.2 Starting washing programme



9.3.3 End of the programme

As soon as the washing programme ends, the start button flashes green.

Only for Energy model machines

At first, the start button **flashes blue-green**. At the same time, the warm and humid vapour is extracted from the interior, and the heat energy stored in it is recovered for the next wash cycle. Do not open the door at this time.

The start button **flashes green** as soon as the warm air is extracted.

9.3.4 Changing the washing programme

Programme 2 is already pre-selected when the machine is ready.

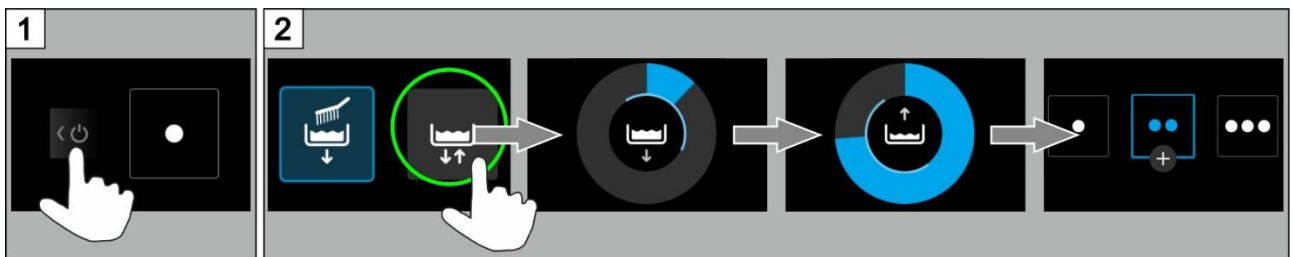
- Select a different washing programme by tapping the or button.
 - ⇒ The button has a blue border.

9.3.5 Terminating the washing programme

- Press the start button or .

9.3.6 Changing the tank water

If the tank water is very dirty and the end wash result is suffering, the tank water can be replaced.

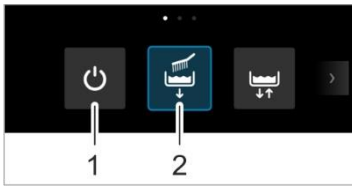


INFO It takes a few minutes until the machine is ready for operation again, as the tank is first emptied and then refilled.

9.3.7 Wash breaks

- Do not switch the machine off during wash breaks.
- Close the door to prevent the machine from cooling down.

9.4 Switching the machine off



Switch the machine off at the end of the working day using the guided self-cleaning programme (2) so that it is cleaned and emptied every day (► 11.1).

INFO If you use the On/Off button (1), the tank stays filled but will no longer be kept at temperature. If the tank temperature has dropped too much before the machine is switched on again, the machine will be emptied and refilled automatically.

10 Integral water softener (optional)

By softening the mains water, limescale build-up in the machine and on the dishes can be avoided. For the water softener to work correctly, the salt container must be filled with regeneration salt.

10.1 Display of lack of salt



A pictogram on the display shows when the salt container is empty and needs to be refilled. The icon disappears after filling the salt container, as soon as approx. 3 wash cycles have been completed and part of the salt has been dissolved.

10.2 Refilling the regeneration salt

Tip Salt residues can have a negative effect on the wash result. It is best therefore to top up the regeneration salt before starting the self-cleaning programme.



Caution

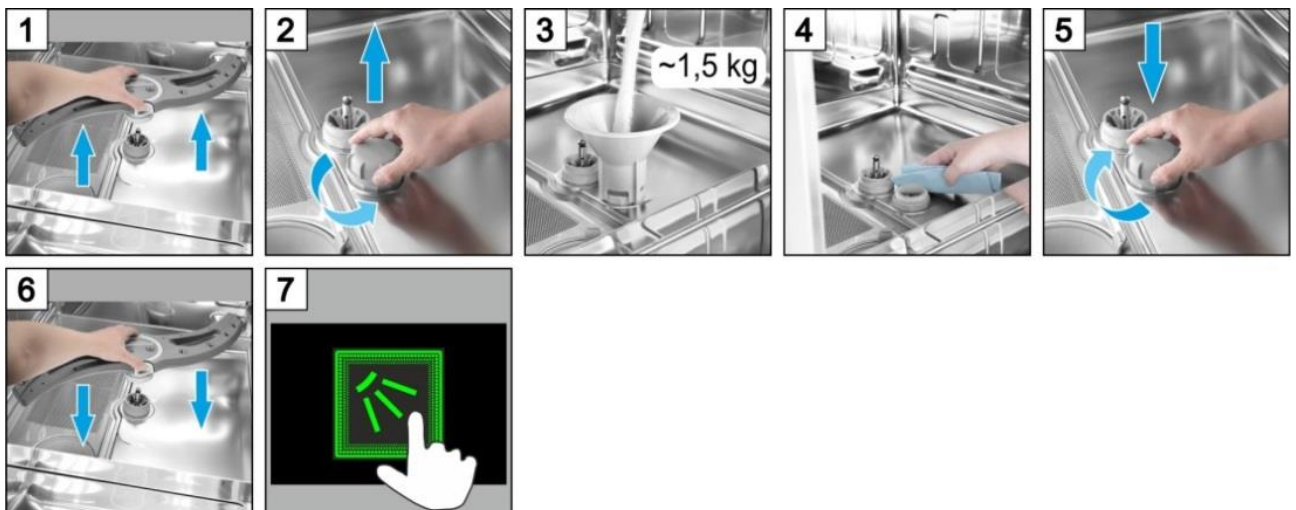
Possible risk of damage to the water softener

Chemicals such as detergent or rinse aid will inevitably damage the water softener. Fill only with regeneration salt or a pure evaporated salt.

Possible malfunctions of the water softener

Do not fill with any other types of salt (e.g. table salt or de-icing salt). These can contain non-soluble components. Fill only with fine-grain salt (max. 0.4-7 mm grain size).

INFO Due to their size, salt tablets are not suitable.



Caution

Danger of rust formation in the filling area

After filling the regeneration salt, start a wash cycle or the self-cleaning programme in order to wash away any salt residues that may be present.

11 Servicing and maintenance

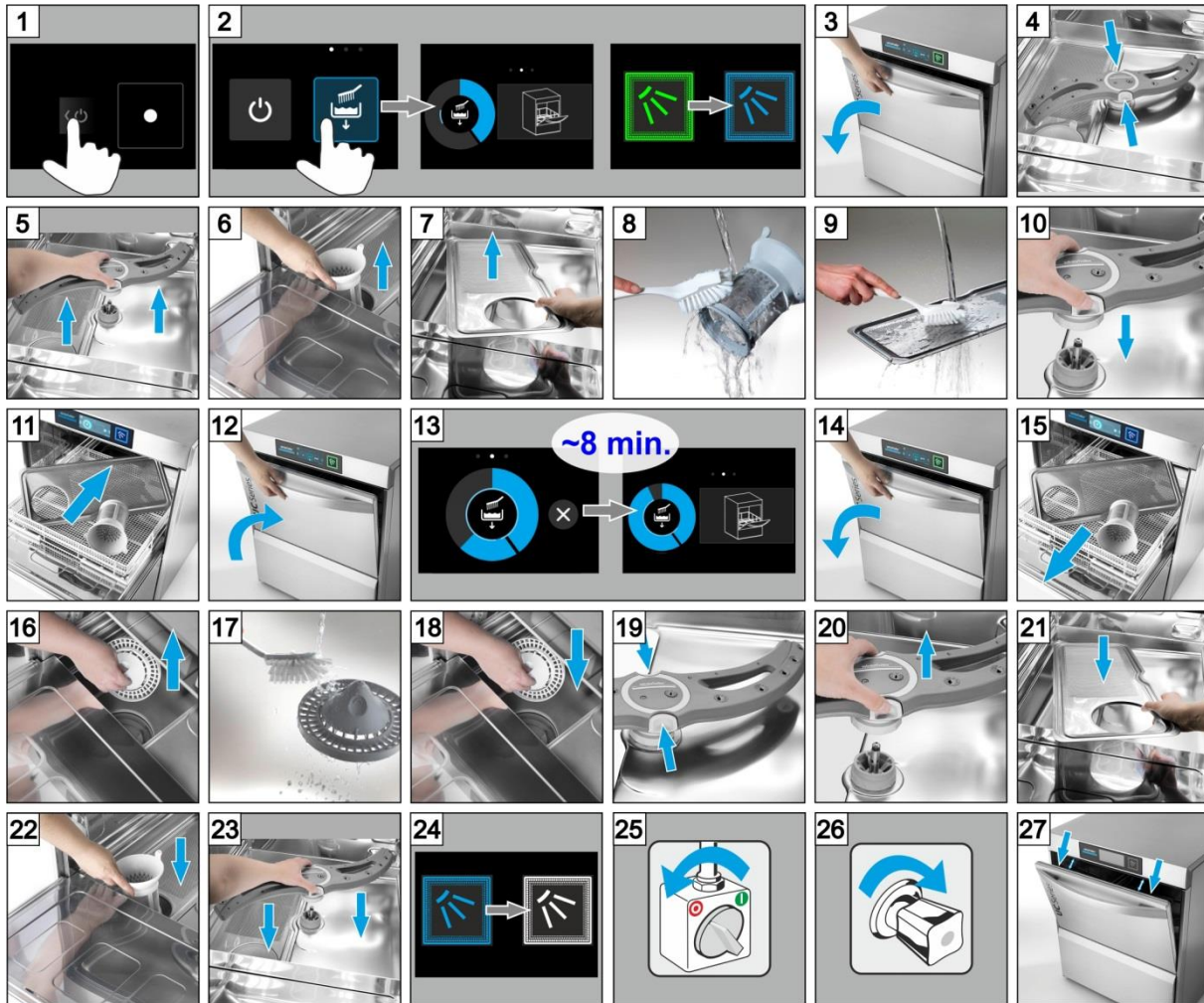


Warning

Wear protective clothing and protective gloves before touching parts in contact with wash water (filters, wash fields, etc.).

11.1 Self-cleaning programme

A self-cleaning programme is helpful in cleaning the interior of the machine at the end of the working day. After the first programme step, the self-cleaning programme is interrupted and a video with further steps is shown in the display. If you do not follow these steps, the self-cleaning programme will continue automatically after 30 seconds.



Terminating the programme



➤ Press ⊗.

11.2 Cleaning the interior



Caution

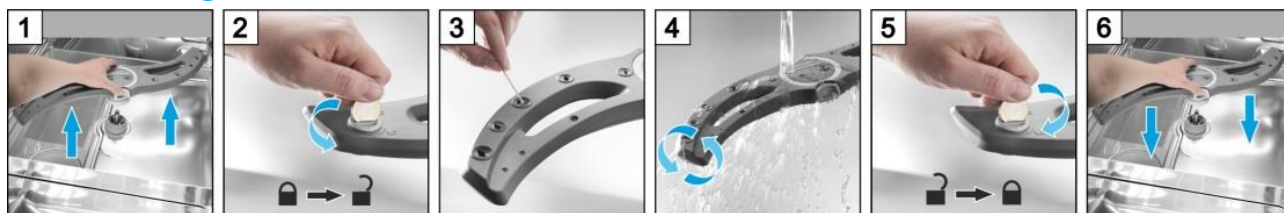
Ensure that there are no rusty foreign objects in the interior of the machine which could cause even the "stainless steel rust-free" material to start to rust. Rust particles can come from non-rust-free wash items, from cleaning aids, damaged wire racks or from water pipes that are not protected against rust.

The following materials must **not** be used for cleaning:

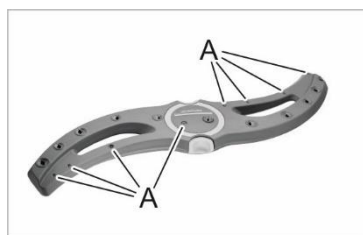
- High-pressure cleaner
- Detergents containing chlorine or acid
- Cleaning sponge or wire brush containing metal
- Abrasives or abrasive cleaning agents

➤ Remove dirt with a brush or a cloth.

11.3 Cleaning the wash fields



➤ Proceed in the same way for the upper wash field.



Checking the rinse jets

- Check to ensure that the rinse jets (A) are not blocked or obstructed by limescale.
- Clean the rinse jets as required.
- Contact an authorised service technician if the rinse jets are heavily blocked with limescale.

11.4 Cleaning the outside of the machine



Warning

- Do not spray the machine and the surrounding area (panels, base) using a water hose, steam jet or high-pressure cleaner.
- Ensure when cleaning the floor that the base of the machine is not flooded, to prevent the uncontrolled inflow of water.

- Clean the display with a damp cloth.
- Clean the external surfaces using a stainless steel cleaner and stainless steel polish.

11.5 Descaling

If the machine is operated with water of high hardness without water treatment, descaling is necessary at regular intervals (► 7.7).

11.6 Maintenance by the customer service department

We recommend that you have an authorised service technician carry out maintenance of the machine at least once a year so that vulnerable parts subject to ageing and wear can be checked and replaced accordingly. Original spare parts must be used for repairs or to replace consumable parts.

Consumable parts are, for example:

- Dosing tubes
- Door seal
- Inlet water hose

Service interval



The machine control unit specifies the number of operating hours or wash cycles at which the pictogram for service is shown.

INFO This function is deactivated ex-factory. On request, the service technician can activate this function.

12 Error pictograms and poor wash result

Errors are displayed as pictograms. If many errors occur, washing will still be possible but the end wash result will be impaired. Please therefore rectify any error as soon as possible.

If you are unable to rectify the error yourself:

- Contact an authorised service technician.



If the display is defective or does not respond at all:

- Clean the display with a damp cloth.

12.1 Error pictograms

	Cause/meaning	Remedy
	Lack of rinse aid	Fill the built-in storage tank or replace the container. Prime the dosing device (▶ 6.3.2).
	Lack of detergent	
	Detergent dosing failed	Fill the built-in storage tank or replace the container. Prime the dosing device (▶ 6.3.2). If the error is not cleared: Contact an authorised service technician.
	Upper wash field is blocked	Remove the obstruction and restart the programme.
	Lower wash field is blocked	Remove the obstruction and restart the programme.
	Lower wash field is not correctly engaged	Engage the wash field correctly and restart the programme.
	Rinse jets blocked or obstructed with limescale	Clean or descale rinse jets (▶ 11.3).
	For machines with an integrated softener: Lack of salt	Fill the salt container with regeneration salt (▶ 10.2).
	Machine with external partial demineralisation cartridge: Partial demineralisation cartridge used up	Replace the partial demineralisation cartridge. Reset the water back-flow counter (PIN menu ▶ 7.14).
	Machine with external full demineralisation cartridge: Full demineralisation cartridges used up	Have the resin of the full demineralisation cartridge replaced by an authorised service technician. Reset the water back-flow counter (PIN menu ▶ 7.14).
	Error on external water treatment device (e.g. AT Excellence-S/-M)	Check the water treatment device.
	Door was opened at an inadmissible time (e.g. during washing)	Close the door and restart the programme.
	Lack of water	Open the on-site water supply.
		Have the dirt trap cleaned by a service technician or have a new dirt trap installed.
		Have the solenoid valve repaired by an authorised service technician.
	Energy optimisation active	Wait until the on-site energy optimisation equipment switches off.
	Service interval expired	Contact an authorised service technician.
	Strainer clogged	Remove, clean and replace the filter cylinder and strainer.

Error pictograms and poor wash result

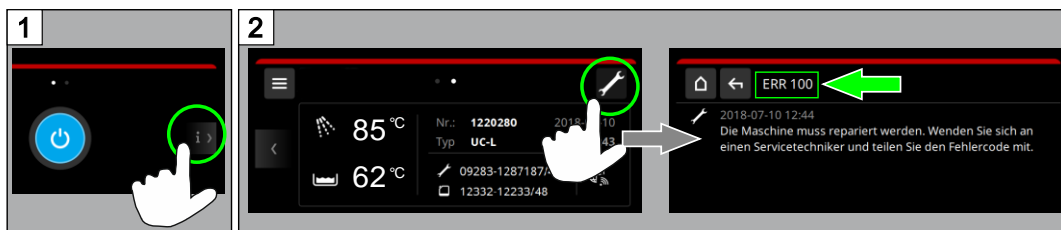
	Cause/meaning	Remedy
	Check the scaling	Starting the descaling programme (PIN menu ► 7.7).
	Various	Tap the pictogram and note the error code. Contact an authorised service technician.

INFO By tapping the pictogram, additional information will appear on the display.

If a serious error is present, washing is no longer possible and a red bar appears at the top of the display:



Accessing the error code



12.2 Poor wash result

	Possible cause	Remedy
Wash items not clean	No or low detergent dosing	Set the dosing amount as per the manufacturer's specifications (► 7.4). Check the dosing hose (for kinks, breakage, etc.) Replace the container, if empty.
	Wash items incorrectly sorted	Do not stack wash items over each other (► 9.3.1).
	Wash field nozzles clogged	Dismantle wash field and clean jets (► 11.3).
	Temperatures too low	Check temperatures (► 6.3.1).
	Tank water too heavily soiled	Start tank water exchange programme (► 9.3.6)
Spots visible on the wash items	If scaling is present: The water is too hard	Check the external water treatment. Carry out basic cleaning.
	In case of starch residues: Temperature of manual pre-cleaning exceeds 30 °C	Lower the temperature of manual pre-cleaning.
The wash items do not dry on their own	No or low rinse aid dosing	Set the dosing amount as per the manufacturer's specifications (► 7.4). Check the dosing hose (for kinks, breakage, etc.) Replace the container, if empty.
	Rinse temperature too low	Contact an authorised service technician.

INFO Water quality affects washing and drying result. We therefore recommend that the machine be supplied with softened water from a total hardness of more than 3 dH (0.53 mmol/l).

13 Taking the machine out of operation for long periods of disuse

Proceed as follows if you take the machine out of operation for a long period (holidays, seasonal business).

- Empty the machine using the self-cleaning programme (► 11.1).
- Cleaning the machine (► 11.2, 11.3, 11.4).
- Leave the door open in the detent position.
- Close the on-site water supply.
- Switch off the local mains disconnecter.

If the machine is in a place that is not frost-free:

- Instruct an authorised service technician to make the machine frost-resistant.

14 Putting the machine back into service after a long period of disuse

- Open the on-site water supply.
- Switch on the local mains disconnecter.
- Close door.
- Switch on the machine.

If the machine was in a place that was not frost-free:

After extended periods of disuse, the machine must be completely climatized (at least 24 hours at 25 °C). If this requirement is met:

- Contact an authorised service technician to put the machine back into service.

15 Installing the machine

The installation site must be frost-resistant to prevent the water supply systems from freezing.

- Install the machine horizontally using a spirit level.
- Adjust the base unevenness using the height-adjustable machine feet.

16 Connecting the machine



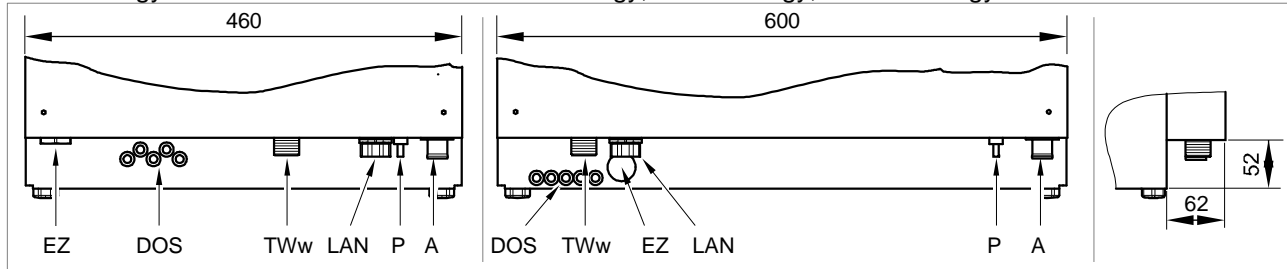
Warning

The machine and any other relevant additional devices must be connected in adherence to local standards and regulations by an electrical company authorised by the relevant electricity supplier.

16.1 Location of connections on the machine

UC-S
UC-S Energy

UC-M, UC-L, UC-XL
UC-M Energy, UC-L Energy, UC-XL Energy

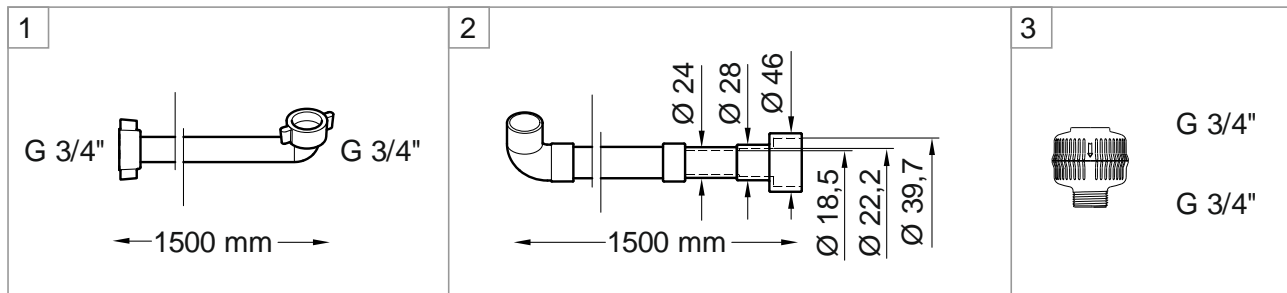


Rear view

Right view

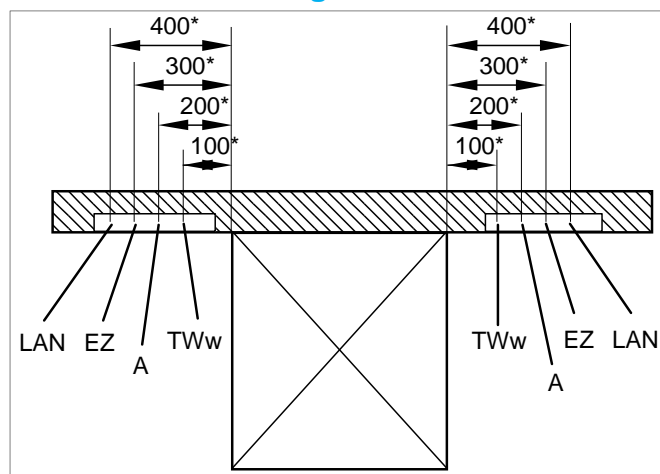
EZ	Entry for mains cable
DOS	Port for hoses (detergent / rinse aid) and cables
TWw	Inlet water connection (G 3/4", external thread)
LAN	Connection for patch cable CAT.7 (socket RJ45); (if the machine is to be networked)
P	Connection for on-site equipotential bonding system
A	Waste water connection; drain pump installed

16.2 Accessories



1	Flexible supply hose	connect to point TWw
2	Flexible drain hose	connect to point A
3	Dirt trap	Install between the water supply and the supply hose

16.3 Installation diagram



IMPORTANT

Provide the connections next to the machine on the left or the right.

Define the precise dimensions taking the local circumstances into account.

LAN	Network socket RJ45 (if the machine is to be networked)
EZ	Electrical connection
A	Waste water connection
TWw	Inlet water connection

16.4 Water connection

The water-related safety should be as per DIN EN 61770. The machine can be connected to a fresh water pipe without an intermediate connection to other safety equipment.

Inlet water connection (G 3/4", external thread)

Location	approx. 400 mm above finished floor Beside the machine		
Water quality	The microbiological aspects of fresh water must have the same quality as that of drinking water		
Inlet water temperature	Standard	max. 60 °C	
	Energy	max. 20 °C	
	Cool	max. 20 °C	
	UC Excellence-i / -iPlus	max. 35 °C	
Water hardness		Machines without integrated softener	Machines with integrated softener
	Standard, Energy, Cool	≤ 3 °dH (3.8 °e / 5.34°TH / 0.54 mmol/l) Recommended, so that the machine does not calcify.	≤ 31 °dH (37.6 °e / 53.4°TH / 5.35 mmol/l)
	UC Excellence-i	≤ 35 °dH (43.9 °e; 62.3 °TH; 6.3 mmol/l)	—
	UC Excellence-iPlus	—	≤ 31 °dH (37.6 °e / 53.4 °TH / 5.35 mmol/l)
Minimum flow pressure	Standard, Cool	100 kPa (1.0 bar)	
	Energy	150 kPa (1.5 bar)	
	UC Excellence-i / -iPlus	140 kPa (1.4 bar)	
Maximum inlet pressure (back pressure)	600 kPa (6.0 bar)		
Flow rate	Standard, Cool	at least 4 l/min	
	Energy	at least 3 l/min	
	UC Excellence-i / -iPlus	at least 4 l/min	

Waste water connection

Location	max. 600 mm above finished floor Beside the machine
Construction	Trap on-site

Connecting the machine

16.5 Connecting the supply hose

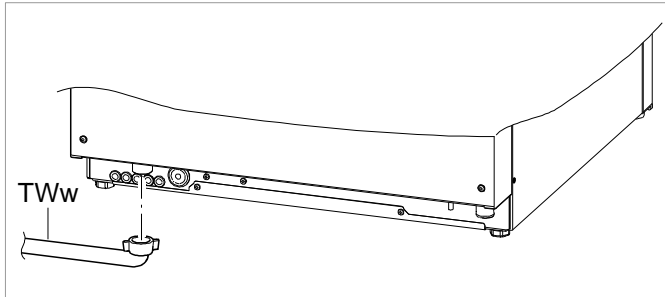


Caution

Do not shorten or damage the hose.
Old existing hoses may not be re-used.
Do not bend the hose when laying it.

The supply hose and dirt trap are located in the machine.

INFO The dirt trap prevents particles from the water supply line from entering the machine, thus preventing extraneous rust on the dishes and in the machine.



Rear view

- Connecting the supply hose (TWw) to the machine.
- Connect the dirt trap to the on-site water supply.
- Connect the supply hose to the dirt trap.
- Open the water supply and check whether the connections are closed.

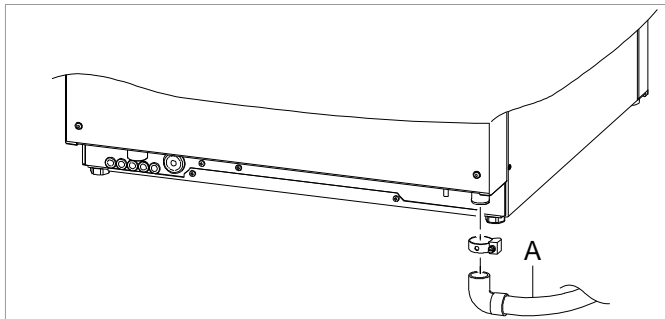
16.6 Connecting the drain hose



Caution

Do not shorten or damage the hose.
Do not bend the hose when laying it.

The drain hose is located in the machine.



Rear view

- Connect the drain hose (A) to the machine.
- Connect the drain hose to the on-site water drain.

16.7 Electrical connection



Danger

Danger of death: live components!

- The machine and the relevant additional devices must be connected by an electrical company authorised by the relevant electricity supplier as per the locally applicable standards and regulations.
 - When performing installation and maintenance work and repairs, unplug the machine from the mains supply. Check that there is no voltage.
-
- The electrical safety of this machine is guaranteed only if it is connected to a correctly installed protective circuit and a residual current circuit breaker. It is crucial that this basic safety requirement is tested and, in case of doubt, that the house installation is checked by a qualified electrician.
 - The circuit diagram must be observed.
 - The machine may be operated only at the voltages and frequencies specified on the rating plate.
 - For machines delivered without a plug, a fixed connection must be installed as an overriding priority.
 - When the machine must be permanently connected (without a plug), a mains disconnecter with all-pole separation from the mains supply must be installed. The mains disconnecter switch must have a contact opening width of at least 3 mm, and must also be lockable in the neutral position.
 - The electrical connection must be secured as a separately fused circuit with slow fuses or circuit breakers. The fuse protection depends on the total connected load of the machine. The total connected load is specified on the rating plate of the machine.
 - Additional recommendation: In the electric supply line, install a universal current-sensitive residual current circuit breaker class B with a release current of 30 mA (DIN VDE 0664), as a frequency inverter is located in the machine.
 - Machines delivered from the factory fitted with mains cable and safety plug (single-phase), or CEE plug are (triple-phase), may be connected only to the mains network indicated on the nameplate.


The following note applies to devices with a measuring conductor current > 16 A:

This device complies with IEC 61000-3-12, provided that the fault output S_{sc}

at the customer's system connection point to the public mains supply is greater than or equal to 1.57 MVA ($R_{sce} = 120$).

It is the fitter's or machine operator's responsibility to ensure that this device is connected only to a fault output of 1.57 MVA or more, upon consultation with the network operator if required.

Establishing equipotential bonding

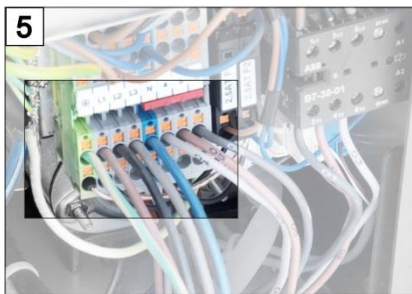
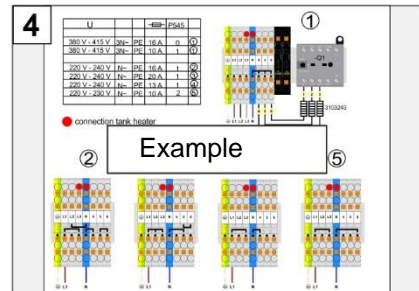
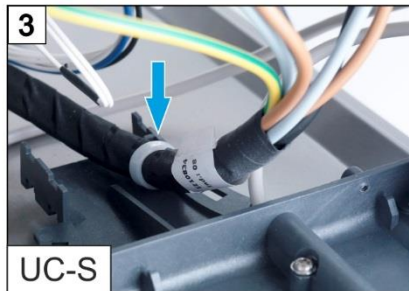
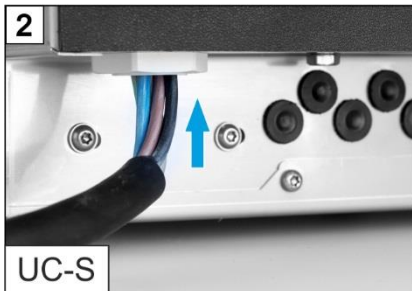
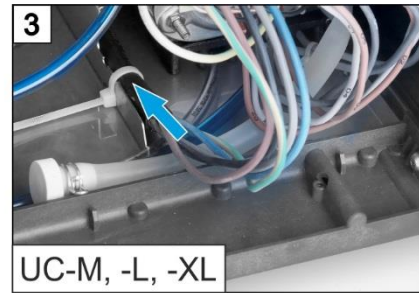
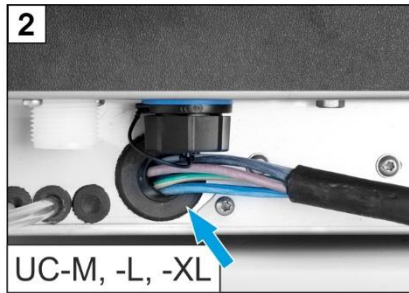
- Connect the machine to the on-site equipotential bonding system (Position of the connecting screw  ► 16.1).

Connecting the machine

Connecting the mains cable

Requirements for the mains cable:

- Cable of type H07 RN-F or equivalent
- Cross-section and number of wires appropriate for voltage, fusing and total connected load



- 4 ➤ Follow the connection diagram.
The connection diagram is attached to the rear of the partition wall for the electrical installation compartment.
- 5 ➤ Connect the wires of the mains cable according to the connection diagram.
➤ Place new bridges in accordance with the connection diagram. Firmly press the bridges with a screwdriver.
- 6 ➤ Set the interlock (P545) as part of menu-guided commissioning.

17 External dosing devices

Instead of the integral dosing device, external dosing devices can also be used.

Only for NSF model machines

The machine must be operated with an automated detergent dosing device. One of the two following requirements must also be met:

- An option to visually inspect whether detergent is being dosed.
- A visual or acoustic alarm signal, if detergent dosing fails.

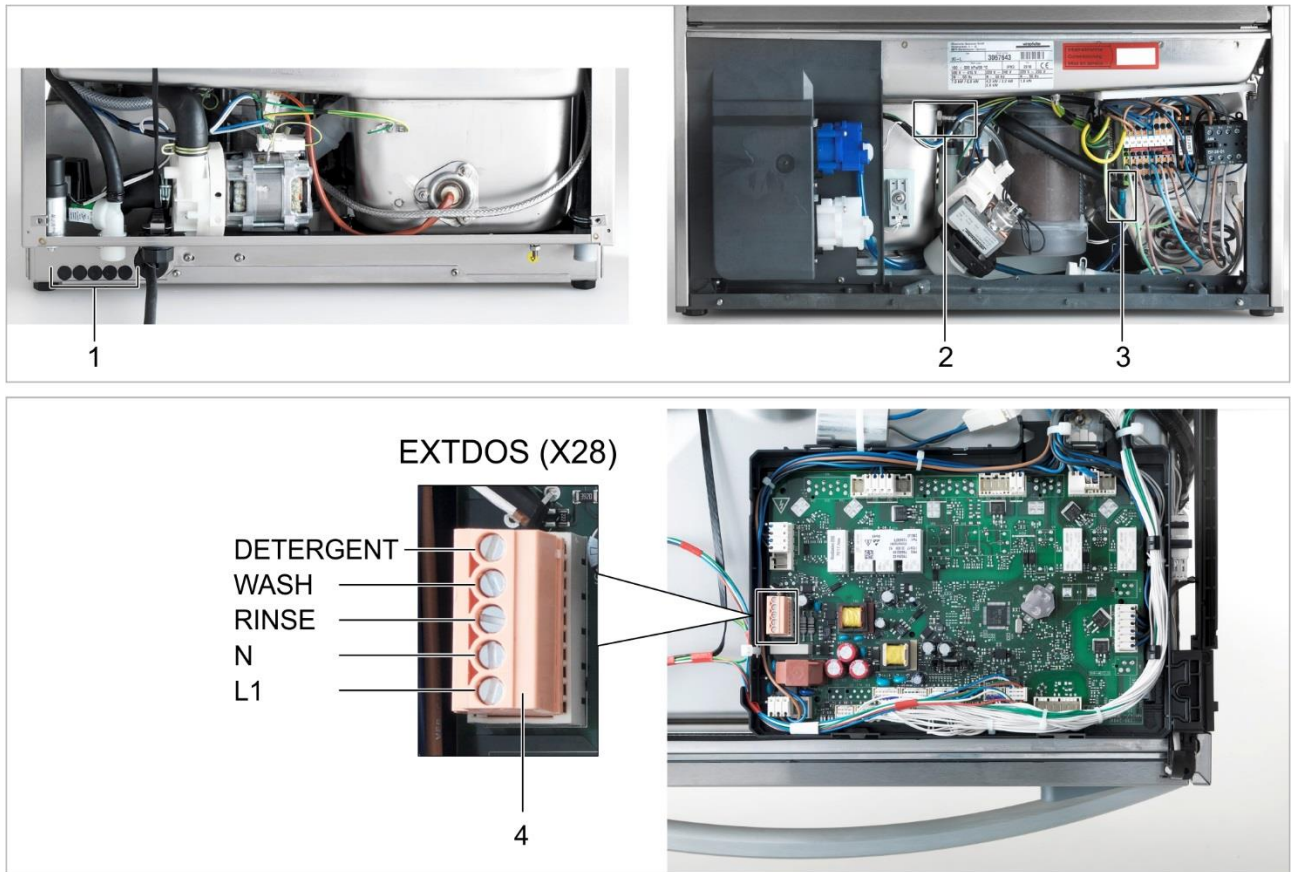
You can find more information on connecting the dosing device in this chapter and in the dosing device documentation.

17.1 Terminals



Danger of death: live components!

Have the dosing devices installed and commissioned by an authorised service technician.



Item	Description
1	Entries for hoses and cables
2	Detergent dosing point
3	Rinse aid dosing point
4	Transfer strip with red plug for connecting external dosing devices

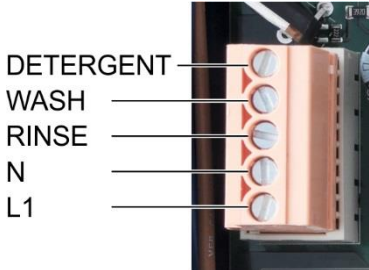
17.2 Electrical connection



Caution

When connecting an external dosing device to the control board, there must be no short circuit. The control board can be destroyed by a short circuit. Connect external dosing devices only with their own fuse protection.

IMPORTANT Maximum current drain at the transfer strip: 0.5 A.



- Connect the external dosing device to the 5-pin plug.
- Programming the transfer strip (► 17.3).

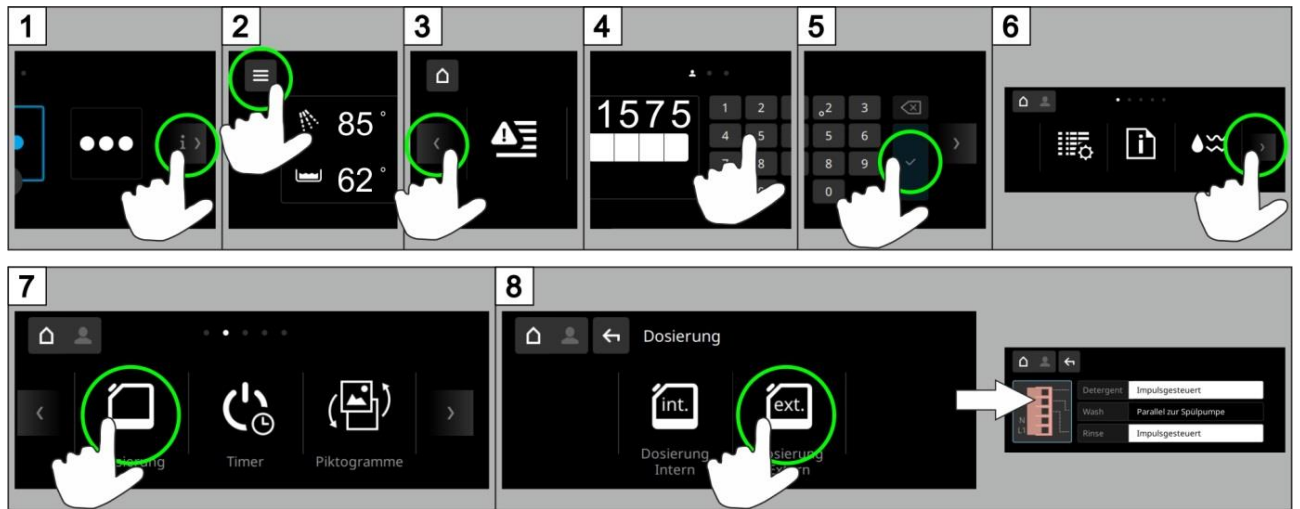
Terminal	Signal description
N	Neutral/phase 2
L1	Phase 1/continuous voltage

Terminal	Voltage present	Condition	Restriction
DETERGENT	While machine fills	a), b)	
	Parallel to the solenoid valve (O7) – While machine fills – During the rinse	a)	c)
WASH	Parallel to the wash pump	a)	c), d), e)
RINSE	Parallel to the rinse pump (O12)	a)	c), d), e)
	Parallel to the solenoid valve (O7) – While machine fills – During the rinse	a)	c)

- a) hood/door closed
- b) minimum water level in the tank
- c) not during the self-cleaning programme
- d) not while the machine is being filled
- e) not during the descaling and basic cleaning programme

17.3 Programming the transfer strip

Calling up the menu



Configuration options



Terminal	Settings	Application
DETERGENT	While machine fills	For dosing devices not from Winterhalter
	Parallel to the solenoid valve	
	Time-controlled	For hose pumps with fixed output (e. g. ESP 166, ESP 166C, SP 166Z)
	Impulse-controlled	Integral dosing device Fluidos DT
	Time-controlled V-membrane pump	Not used
WASH	Parallel to the wash pump	For dosing devices not from Winterhalter
RINSE	Parallel to the rinse pump	For dosing devices not from Winterhalter
	Parallel to the solenoid valve	
	Time-controlled	For hose pumps with fixed output (e.g. SP 16K)
	Impulse-controlled	Integral dosing device Fluidos DB
	Time-controlled V-membrane pump	Not used

17.4 Examples

Connecting an external detergent dosing device

- 1 Hose pump with time-delay relay and fixed output
 - Connect to “**WASH**” terminal.
 - Set time-delay relay on the dosing device.
- 2 Hose pump with adjustable output
 - Connect to “**DETERGENT**” terminal.
 - Programming the transfer strip (▶ 17.3): **Parallel to the solenoid valve**
 - Set the output (ml/min) amount at the dosing device.
- 3 For hose pump with fixed output (e.g. ESP 166, ESP 166C, SP 166Z)
 - Connect to “**DETERGENT**” terminal.
 - Programming the transfer strip (▶ 17.3): **Time-controlled.**
 - Setting the output on the display (▶ 17.3).
 - Set both potentiometers to max.
 - Set dosing amount on the machine.

Connecting an external rinse aid dosing device

- 1 Hose pump with adjustable output
 - Connect to “**RINSE**” terminal.
 - Programming the transfer strip (▶ 17.3): **Parallel to the rinse pump.**
 - Set the output (ml/min) amount at the dosing device.
- 2 For hose pump with fixed output (e.g. SP 16K)
 - Connect to “**RINSE**” terminal.
 - Programming the transfer strip (▶ 17.3): **Time-controlled.**
 - Setting the output (ml/min) on the display (▶ 17.3).
 - Set potentiometer to max.
 - Set dosing amount on the machine.

18 Technical data

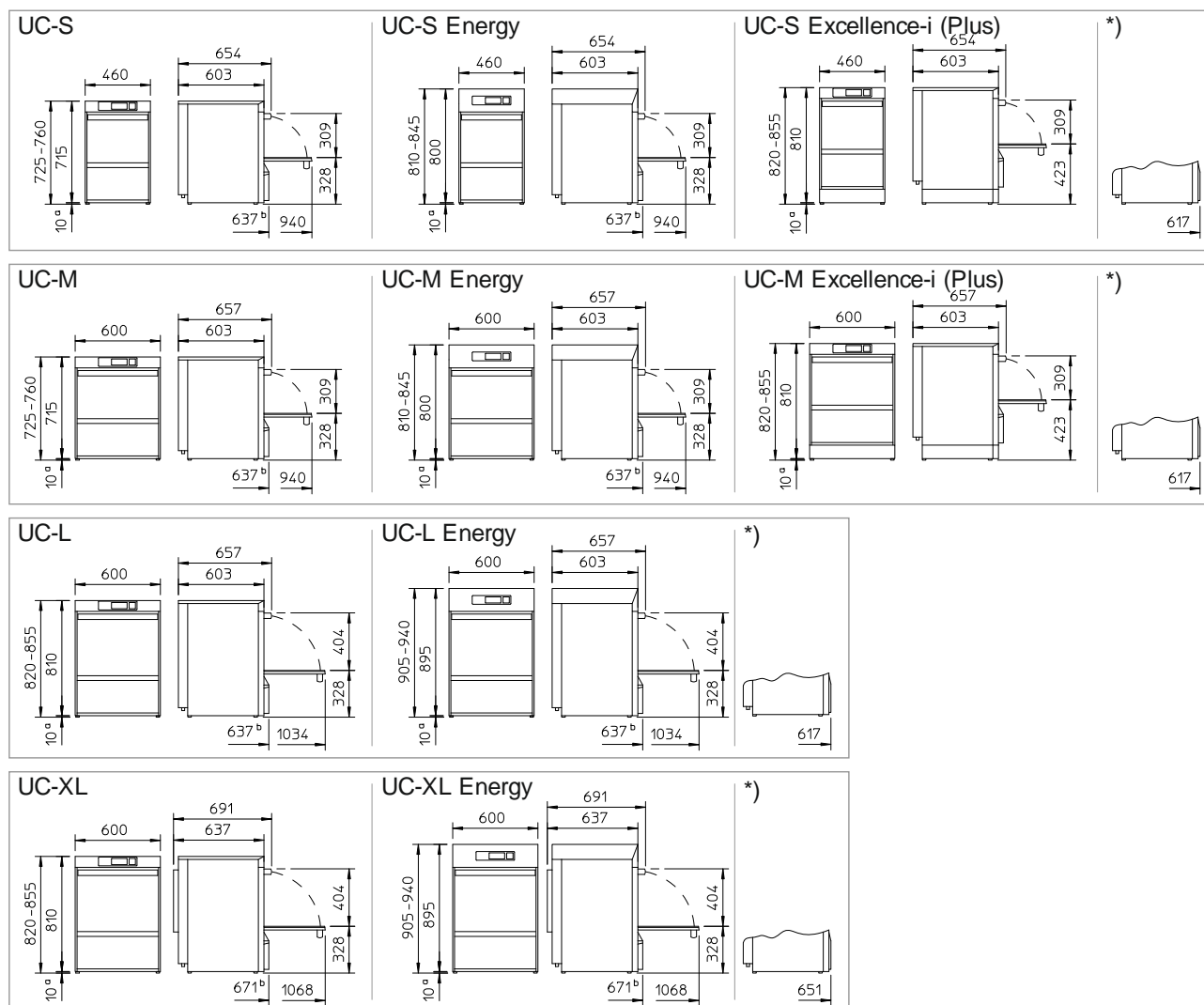
General

Voltage	see rating plate
Total connected load	
Inlet water temperature	▶ 16.4
Minimum flow pressure	
Maximum inlet pressure (back pressure)	

Operating conditions

Operating temperature	0 - 40 °C
Relative air humidity	< 95%
Storage temperature	> -25 °C
Max. height of the installation location above sea level	3000 m

Dimensions



19 Emissions

Noise

Workplace-related emission sound pressure level L_{pA}	max. 55 dB
Measurement uncertainty K_{pA}	2.5 dB

Exhaust air

Adhere to the VDI Guideline 2052 when designing the ventilation system.

20 Disposal

Contact your dealer so that the materials in the machine can be reused or disposed of in accordance with local legislation.

89014383-01; 2020-08; subject to changes

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