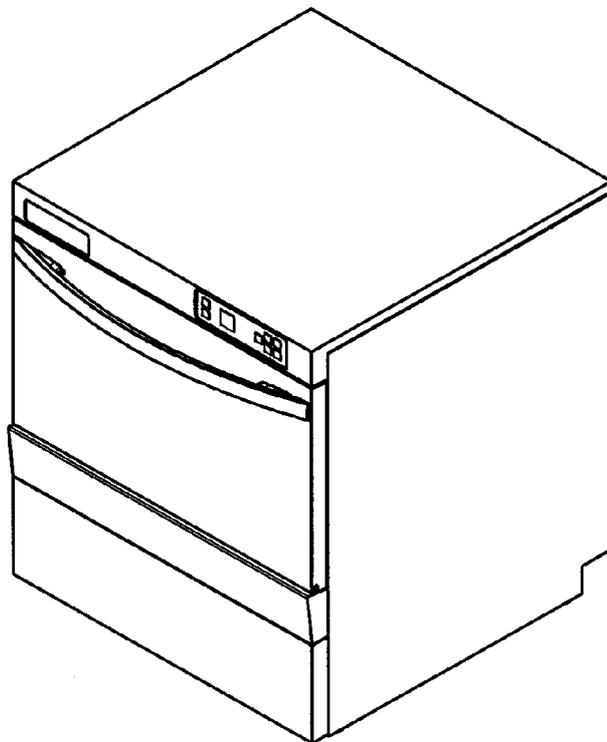


winterhalter



**Betriebsanleitung
Operating instructions
Manuel d'utilisation**

GS 202, GS 215



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Operating instructions

for Winterhalter Gastronom GS 202 and GS 215 Glasswasher

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1 Intended use

The **Winterhalter Gastronom GS 202 and GS 215 glasswashers** may only be used for cleaning drinking glasses from the restaurant trade and commercial catering.

The machine may only be used for this purpose and in accordance with the operating instructions.

Any change in design or use of the glasswasher carried out without the written permission of Winterhalter Gastronom GmbH, leads to the guarantee and product liability becoming null and void.

If damage is caused to the glasswasher due to failure to observe the instructions given in this manual, no claims under guarantee can be made to Winterhalter Gastronom GmbH.

2 Safety instructions

Make sure that you have read and understood the operating instructions before you start to use the washer. The Winterhalter customer service department can tell you how to operate the washer and how it works. Do not modify, extend or convert the machine without the manufacturer's approval.

The following symbols are used in this manual:



Warning: Failure to observe these instructions can lead to danger to life, e.g. from electrical equipment.



Attention: Failure to observe these instructions can lead to damage to equipment.



Not drinking water: The water in the washer is not drinking water.

3 Installation and connection



Installation and connection of the washer to the customer's water inlet, waste water drainage and electricity connections are to be carried out in accordance with national and local criteria by qualified engineers.

Check for completeness:

After unpacking the machine, first check the delivery against the delivery note to ensure that it is complete, and inspect for damage that may have occurred during transportation. Immediately report any damage to the carrier, the insurance company and the manufacturer.

Setting up and alignment



If machine is installed with accessible back side, back panel is absolutely necessary.



When setting up the machine, remember that the machine gives off water vapour during operation (e.g. when you open the door). Protect adjacent wooden furniture to prevent it absorbing moisture and swelling up.



Protect the washer against frost. Systems that carry water can be damaged if they freeze.

Before starting installation, use a spirit level to check that the system is totally horizontal. Adjust the machine's feet to compensate for any unevenness of the floor.

Connection to the water supply:



Note all the information on the enclosed connection diagram!
For the machine to work correctly, the required water pressure and flow rate must be guaranteed at all times.

- Fit a **main stop valve** in the water inlet near the washer and in an easily accessible position. It must not be located behind the washer.
- The washer has been tested by the DGWV (German Association for the Gas and Water Industry), and was designed and constructed in accordance with DGWV guidelines. It can be connected directly to the fresh water inlet without the need for further safety devices.
- Use the feed pipe and fine filter in the glasswasher for the water feed. Check that there are no leaks at the connections. The feed pipe may not be shortened or damaged
- Use the flexible drain pipe in the dishwasher to drain the water. The drain pipe may not be shortened or damaged.
- Installation of a water treatment system (if not already integrated into the machine) is recommended if the water hardness exceeds 3°d. This will guarantee optimum washing results. The Winterhalter customer service department will be happy to advise on a suitable system.
- The washer is equipped with a drain pump. The maximum pump-out head is shown in the connection diagram.

Connection to the power supply:



Have the electric installation of the washer and the auxiliary devices belonging to it carried out only by a specialist firm of electricians approved by the responsible electricity board in accordance with the norms.

Observe the technical connection regulations.

Before commissioning the washer, check that all electrical protection systems are working correctly.

Caution! The machine is only to be considered free from voltage when the mains disconnecting switch (mains switch) provided by the customer is switched off.

- The total load of the washer is shown on the machine's rating plate.
- The electrical connection of the washer is to be fused by the customer with time-lag fuses or circuit breaker according to wattage (see machine rating plate). No other consumers may be fused with the washer.
- Install a mains disconnecting device (mains or inspection switch) and a fault current breaker (release current 30mA) in the electrical feeder according to regulations. These switches must switch off all-poles and have at least 3 mm contact distance. The place of installation must be near the washer and easily accessible.
- Connect the washer to the customer's equipotential bonding system. The connecting screw is located in the machine base.
If the machine is mounted on a base, the base has to be connected to the equipotential bonding system of the machine.
- The protective conductor (PE) is yellow-green, the neutral conductor (N) is blue and the live wires (L1, L2, L3) are black or brown.

Connecting cable

The connecting cable may only be changed or replaced by the manufacturer, its customer service representative or a similarly qualified person. Use an H07 RN-F type cable or equivalent.

Phase sequence of main power cable

Mains	1/N/~	2/-/~	3/N/~	3/-/~
No. of leads	3	3	5	4
PE	green-yellow	green-yellow	green-yellow	green-yellow
N	blue	-	blue	-
L1	brown	brown	grey	brown
L2	-	blue	brown	grey
L3	-	-	black	black

Connecting dosing units not made by Winterhalter Gastronom GmbH

A connection for dosing units not made by Winterhalter Gastronom GmbH is found in the machine base. This connection is marked on the circuit diagram. If needed, a description of connection possibilities can be ordered.

Final tasks:

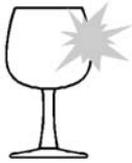
The washer must be connected to all services (electricity supply and to the fresh water and waste water systems), prior to testing the machine & installation

Commissioning (initial washing) is carried out by a Winterhalter service engineer, who also trains the operator in how to use the washer.

4 Commissioning

Once the washer is connected correctly to the customer's power supply and water inlet, contact the Winterhalter works representative with responsibility for the location to arrange commissioning and instruction in use of the dishwasher.

5 Points to note when washing glasses



Drinking glasses can be cleaned hygienically, quickly and easily. Note the following important points to keep your glasses in good condition for as long as possible:

Points to note when buying glasses

- Any indentations in the base of the glass should be as shallow as possible.
- The glasses should not have beading around the rim since a heavy rim will prevent the film of water draining out fully after washing.
- Thick bases (e.g. on wheat beer glasses) cool down very slowly and are more likely to break.
- Very tall, narrow glasses are always harder to wash than glasses of normal height.

Points to note concerning glass racks

- Winterhalter glass racks are designed for washing glasses in a slightly tilted position, which increases the rinsing effect and allows the water to drain out of indentations in the base more easily.
- Glass racks are made from plastic or plastic-coated wire to prevent damage to the glasses.
- Wire glass racks must not be damaged in any way. The rack should be replaced if the plastic coating is damaged.

Points to note concerning glasswashers

- Do not wash glasses in a normal dishwasher. The higher temperatures inside a dishwasher will damage the glass over time.
- Winterhalter Gastronom recommends the following temperatures for washing glasses:
Washing: approx. 60°C
Rinsing: approx. 65°C
- For hygiene reasons, never clean ashtrays in the glasswasher!

How to avoid broken glasses

- Do not polish glasses after washing. This is unhygienic and the mechanical pressure places stress on the glass.
- Do not cool glasses quickly after washing (e.g. by placing them in cold water or ice). Rinsing with cold water inside the machine also places stress on the glass.
- Store clean glasses in closed cabinets. Do not store them face down to prevent damage to the rim and to allow the inside of the glass to dry out completely.
- Do not stack glasses during storage.

Preventing odours

- Use odour-free detergents and rinse aids. We recommend that you use our own products – detergent and rinse aid.
- Do not store glasses in areas used for baking, frying or roasting.
- Store clean glasses in closed cabinets. Do not store them face down to prevent damage to the rim and to allow the inside of the glass to dry out completely.
- Do not hang clean glasses from racks over the bar since tobacco smoke can contaminate the inside of the glasses.
- Do not stand glasses on bar towels, etc, to dry. After washing, remove the rack from the machine and leave on the bar to allow the glasses to dry in the rack. We recommend the purchase of a second rack so that the next rack can be filled while the first is being washed.

What to do if glasses are spotted, streaked or dull

- Call in the experts! Have your machine checked out by a Winterhalter customer service engineer.

The wash water

- The water should be pre-treated to prevent mineral and limescale deposits building up on glasses.
- Your water should be tested to determine the correct water treatment for your system. We will be pleased to help you with this and can also supply suitable water treatment systems.

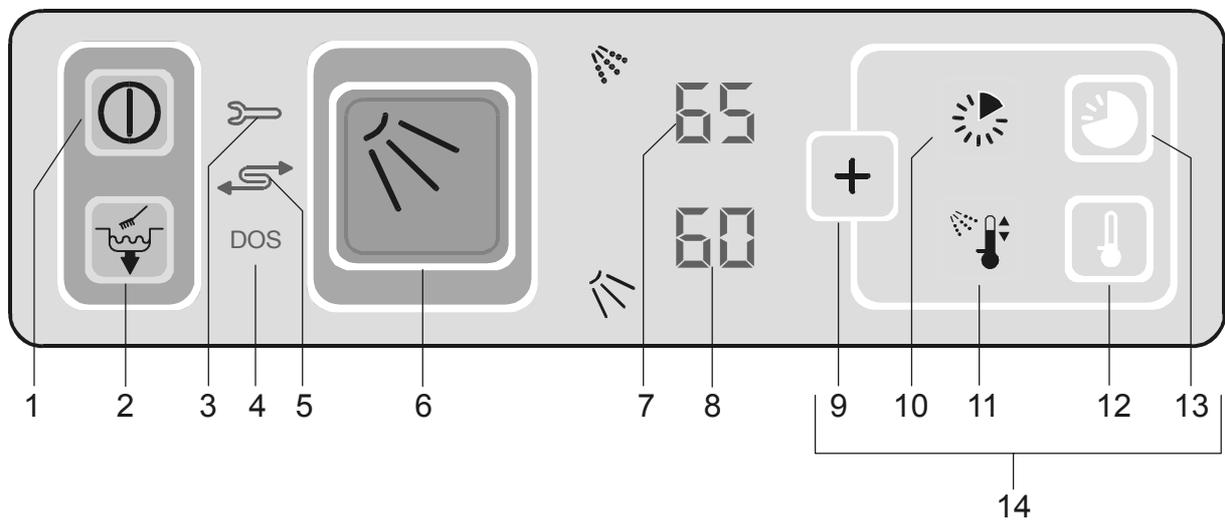
Preparing the glasses for use

- Before you wash your glasses in the machine for the first time, you should first clean them thoroughly to remove the protective film applied at the factory.
- This initial cleaning process can be carried out in the machine. Add approx. 50 – 60 ml Winterhalter detergent directly to the heated wash water and wash the glasses three times.
Attention: Do not put your hands into the wash water. The detergent is extremely alkaline. Then leave the glasses to dry outside the machine.

6 Description of the machine

6.1 Operating panel

The operating panel is situated in the upper part of the machine.



- 1 On/Off switch
- 2 Tank drainage / self-cleaning
- 3 Control lamp for fault
- 4 Control lamp for lack of detergent or rinse aid
- 5 Control lamp for lack of salt or external water treatment exhausted (option)
- 6 Programme button normal programme
- 7 Temperature display – Boiler
- 8 Temperature display – Tank
- 9 Function button – activates the special programmes (10-13)
- 10 Short programme
- 11 Reversible rinse temperature (option)
- 12 Not allocated
- 13 Not allocated
- 14 Button area for special programmes

6.2 How the glasswasher works

When the machine is switched on, the boiler and tank fill up and are heated to operating temperature. The programme button (6) is lit red during the heating up phase.

As soon as the target temperatures are reached (tank: approx. 60°C, boiler: approx. 65°C), the washer is ready for operation. The programme button (6) then lights up green.

The machine is operated using fully-automatic programmes. These consist of three steps: washing, draining and rinsing. The programme button (6) is lit blue during the programme.

Integral dosing pumps dose the rinse aid and detergent from storage tanks behind the front panel.

Washing: The wash pump pumps the wash water from the tank onto the glasses via the wash arms and jets. As the wash water circulates, it passes constantly through a filter system where it is cleaned.

Draining: After washing, there is a brief pause to allow the wash water to drain off the glasses.

Rinsing: In the final step of the programme, the cleaned glasses are rinsed with fresh hot water to remove any detergent residues and to heat up the glasses for optimum drying outside the machine. The rinsing water also replaces the wash water.



Do not open the door while the programme is running. There is a risk of hot water spraying out of the machine.

Do not place anything on the open door.

6.3 Wash programmes

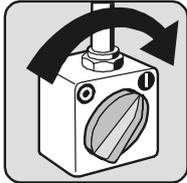
The dishwasher has several different wash programmes which are selected using the operating panel.

Programme (button)	Description
Normal programme (6)	For normal soiled glasses Medium drying time
Short programme (10)	For lightly soiled glasses Short/no drying time
Programmes with reversible rinse temperature (11) (optional)	For washing dishes Programme duration: according to selected wash programme
Tank drainage / self-cleaning (2)	Cleaning of the machine: <ul style="list-style-type: none">• Circulation of the wash water inside the wash chamber• Pumping out the wash water• Flushing out the wash chamber with fresh hot water• Pumping out the used fresh water. The washer switches off automatically when the cleaning programme is finished.

7 Before washing

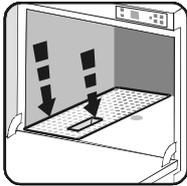


Turn water stop valve to open position.



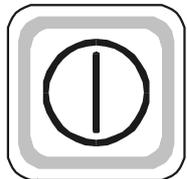
Switch on the mains disconnecting device (mains switch) provided by the customer.

Checking the filter system:



Open the door.
Check that the filter cartridge and flat filter are inserted correctly.
Close the door.

Switch on machine:



Press On/Off switch (1), heating up phase begins.



The programme button (6) is lit **red**: the boiler and tank are filling and heating up.

Adding rinse aid and detergent:



Only use detergent and rinse aid which are suitable for commercial washers. Do not use normal washing-up liquid. This leads to large amounts of foam building up in the washer.

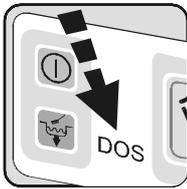
We recommend the products developed by Winterhalter Gastronom. These are specially developed to suit Winterhalter Gastronom washers.



Irritant: Detergents for commercial glasswashers irritate the skin. Always follow the instructions on the packaging and drums.

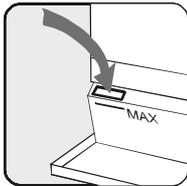


Do not mix different detergent products, since this could cause the dosing pump to break down due to crystallisation (see Maintenance and care).



If DOS is displayed on the machine operating panel, check the level of detergent and rinse aid.

Optional extra: an acoustic signal indicates that you have to top up the machine with detergent or rinse aid.

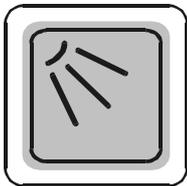


To do this fold the lower panelling forwards.

The storage tanks are identified with “detergent” and “rinse aid”.

When filling, make sure that no detergent goes into the rinse aid container and vice versa.

Then fold back the lower panelling.

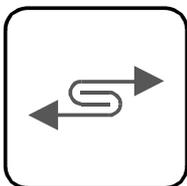


The programme button (6) is lit **green**: The tank and boiler have reached their target temperatures.

The machine is now ready for operation.

Adding regenerating salt *:

*** Only for machines with an integral water softener**



The salt container inside the machine must be filled with regenerating salt when the symbol lights up on the operating panel¹.

You can do this while the machine is on: you do not have to switch off the machine or drain the water.



Open the screw cap on the salt container, insert the funnel into the filler opening and add three bags of Winterhalter special salt (= 1.5 kg).

Remove the funnel and remove any salt residues from around the filler opening. Replace the screw cap, making sure that the lid is not tilted.



Then perform a washing program immediately to flush out any salt residues. Otherwise there is a risk of **rust forming** in the filling area.



Only add regenerating salt to the salt tank!

The salt used should be very fine (max. grain size 5 – 7 mm). Salt tablets are not suitable.

Do not add any other chemicals, such as detergent or rinse aid. These will cause damage to the machine.

¹ **Note:**

If the machine does not have an integral water softener and this symbol lights up, the connected external water treatment system is exhausted and must be regenerated. Follow the instructions in the documentation supplied with the water treatment system.

8 Washing

Observe the following when loading the rack:

- Tip out drink residues (not into the machine).
- Remove paper residues.
- Rinse off any ash with water.
- Load glasses face down.
- Leave a gap between the glasses so that they do not rub against one another. This will prevent the glasses becoming scratched.
- For tall glasses, use a rack with suitable divisions that will hold the glasses in a stable position.

8.1 Washing with the normal programme



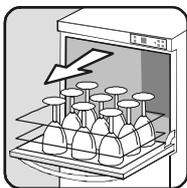
Push the full wash rack into the machine and close the door.



Press programme button (6). The programme button is lit **blue** while the programme is running.



The programme button lights up **green** when the programme has ended.



Open the door, tilt the wash rack forward slightly to allow any remaining water to drain off the glass bases.
Pull the wash rack out and place it on the bar, for example. Close the door or wash the next rack.

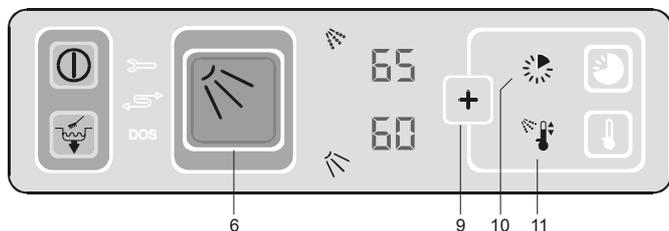
The intrinsic heat of the glasses and the effect of the rinse aid added to the rinse water combine to quickly dry the glasses with a bright and shiny finish. To allow the glasses to dry inside, they should be placed face up in a closed cabinet. Do not stack the glasses, otherwise they might break.

Do not dry recently cleaned glasses with a towel to avoid spreading bacteria and germs.

8.2 Washing with the special programmes



Press the function button to activate the area with the special programmes. Press the button again to deactivate this area.



The special programmes can now be used in addition to the normal programme. The number of special programmes depends on the equipment supplied with the machine. If a button is lit, then it can be used.

The temperatures are also shown now.

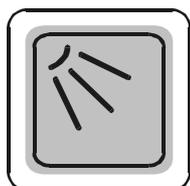
This means that once a special programme has been selected, it will always be activated by pressing button 6. To clear the special programme press button 9 again. If switched off the machine will revert to the normal programme.

A) Short programme

Usage: For washing lightly soiled items:



Press the button (10) to select the short programme.



Press the button (6) to start the selected programme.

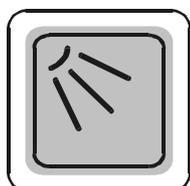
B) Programmes with reversible rinse temperature *

* optional

Usage: A higher rinse temperature is needed when washing dishes in order to ensure that they dry satisfactorily.



Press the function button (11). The button will flash. Then start the required programme.



Normal programme with reduced rinse temperature

- or -

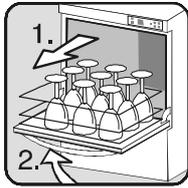


Short programme with increased rinse temperature

Note: Pressing Button 11 again switches back to the original rinse temperature. Button 11 stops flashing and shines continuously.

9 After washing

9.1 Draining the tank; self-cleaning programme



Remove any glasses/racks.
Close the door.



Hold down the function button for three seconds to start the cleaning programme. The function button flashes.

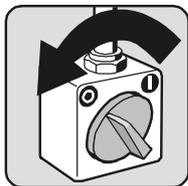
The wash water circulates inside the wash chamber and is then pumped out. The machine interior is then washed out with hot fresh water and the used fresh water is finally pumped out. The washer switches off automatically when the cleaning programme is finished. The operating panel is no longer lit.

9.2 Switching off

The end of the cleaning programme automatically switches off the dishwasher controller, although the machine is not yet isolated from the power supply.



Turn water stop valve to closed position².



Switch off the mains disconnecting device (mains switch) provided by the customer.
Now the machine is isolated from the power supply.

² If an external water treatment system is used, follow the instructions in the system documentation.

10 Maintenance and care

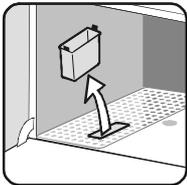
The washer should be regularly cleaned to ensure that it remains reliable and in good working order for many years to come.

In addition to daily cleaning, we recommend that you have the washer serviced at least twice a year by a Winterhalter service engineer.



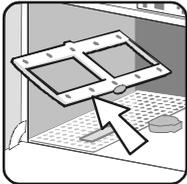
Do not spray the outside of the washer with a high pressure or steam jet cleaner.

10.1 Every day after washing

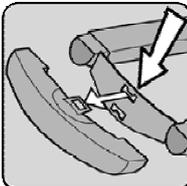


Remove the filter cartridge, clean it under running water and reinsert it.

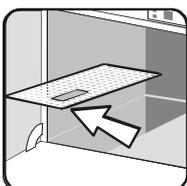
If the flat filter is very dirty:



Remove the bottom wash trays and rinse them with water.



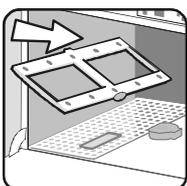
The endcaps of the wash trays are removeable.
Check, if the wash jets are clean.



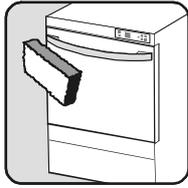
Remove the flat filter with the filter cartridge and clean it under running water.
Use a brush to remove any deposits inside the machine.
Remove the bottom wash trays and rinse them with water during cleaning, make sure that no rusting foreign bodies remain inside the washer. This can cause the interior to rust. The foreign bodies may come from non-stainless steel items washed, cleaning aids, damaged wire racks or from supply lines which have not been rust-proofed.



Reinsert the flat filter with the filter cartridge.



Reinsert the bottom wash trays.



Clean the outer walls of the washer with cleaning products for high grade stainless steel. We recommend the use of Winterhalter Gastronom stainless steel cleaning products.



Open the door slightly into the vent position. This will allow the interior to dry more easily, which is important for long-lasting protection against corrosion – even for stainless steel.

10.2 As required



Check the required FI-residual current operated device for faults regularly according to the regulations by pressing the test button.

Descaling

Machines that are operated in hard water areas and do not have an integral water softener or are not connected to an external water treatment system must be descaled from time to time. There are descaling agents specially designed for commercial washers available for this purpose.



Warning: Descaling agents for commercial washers cause corrosion. Always follow the instructions for use and safety instructions on the packaging and drums.

Changing the detergent type.

If changing to a **different detergent type** (even one by the same manufacturer), you must rinse the suction and pressure hoses with fresh water before connecting the new detergent container.

Otherwise, the mixing of different types of detergent will cause crystallisation, which may result in a breakdown of the dosing pump.

Failure to observe this condition will invalidate the guarantee and product liability claims vis-à-vis Winterhalter Gastronom GmbH.

11 Faults

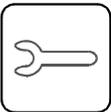
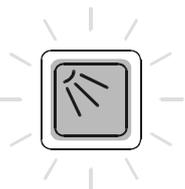
11.1 Faults where it is not necessary to call Winterhalter Service

You can rectify minor faults yourself following the steps described in the table below. If you are unable to rectify the fault, contact Winterhalter service.

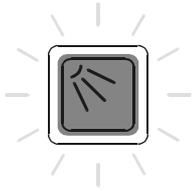


Do not open any panels or expose any parts of the machine if tools are necessary to do so. Risk of electric shock.
 Work on the electrical equipment is only to be carried out by specialist personnel. First disconnect the washer from the mains.
 Do not switch the washer on again until the cause of the fault has been identified.
 Turn off the main switch on the machine. The dishwasher is then isolated from the power supply.

Display	Cause	Remedy
The washer cannot be switched on.	The mains disconnecting device (mains switch) provided by the customer is not switched on.	Switch on the mains disconnecting device (mains switch) provided by the customer.
	Customer's fuses blown	Replace the customer's fuses
Wash programme does not start	Door not fully closed	Close the door fully.
	Machine not ready for operation	Switch on the mains disconnecting device (mains switch) provided by the customer, open the water stop valve and switch on the machine
Glasses are not clean	Detergent or rinse aid storage tank is empty	Top up the storage tank
	Filter cartridge and/or flat filter is dirty	Clean the filter cartridge and flat filter
	Wash jets in the wash arms blocked	Clean wash jets. The end pieces of the wash fields can be removed.
	Functional fault in the water treatment	Call Winterhalter service engineer
Limescale build-up, even though the machine has an integral water softener	No regenerating salt added	Add regenerating salt. If this does not bring about an improvement, call Winterhalter service
Display shows: 	Out of regeneration salt	Refill with regeneration salt and run one wash programme (see also page 11)
	External water treatment system needs regenerating	Regenerate external water treatment system

Display	Cause	Remedy
Display shows 	Lack of detergent or rinse additive	Re-fill detergent or rinse additive
Optional: audible signal	Lack of detergent or rinse additive	Re-fill detergent or rinse additive
Display shows 	Water stop valve closed Malfunction	Switch off machine (press on-off switch). Then Err will appear on the control panel accompanied by a fault code. If error code 20 is shown, close the water shut-off valve and notify Winterhalter customer service. If other error codes are displayed, check whether the water shut-off valve is opened. Then switch on the machine again. If the fault message appears again, note the fault code and get in touch with the appropriate Winterhalter customer service
Button is flashing blue 	If the dishes have not been sufficiently pre-rinsed, so much dirt may have accumulated on the flat filter and the cartridge filter that the wash programme's operation is interrupted. The wash pump turns itself off and the programme button flashes blue.	<ul style="list-style-type: none"> • Turn off the machine, the programme button continues to flash. • Remove the filters, clean and replace. After 2 minutes the flashing will stop. Turn the machine on again and continue to use. • In order to avoid further problems please ensure better pre-rinsing.

11.2 Faults where it is necessary to call Winterhalter Service



Red flashing light: Temperature in boiler or tank is greater than 95°C.



Caution: Surface is very hot. The fault (3) symbol appears together with the fault code Err 2 or Err 3. Switch off the mains disconnecting device (mains switch) provided by the customer.
Notify the Winterhalter service team immediately.

When the machine can no longer be used because of internal malfunctions, the machine turns itself off automatically and displays an error code

Display	Possible cause	Remedy
Machine switches off and displays Err 1	Fault inside machine	Notify Winterhalter customer service
Machine switches off and displays Err 6	Fault inside machine or water drain is clogged	Notify Winterhalter customer service or remove cause of clogging.
Machine is switched off and displays Err 21	Magnetic valve not closing	Close the water shut-off valve and notify Winterhalter customer service.
Machine switches off and displays nothing at all	Fault inside machine	Notify Winterhalter customer service

12 Emissions

Noise

The workplace related emission value L_{pAeq} according to DIN EN ISO 11202 is <60dB(A)

Water vapour

The machine gives off water vapour during operation (e.g. when you open the door). Protect adjacent wooden furniture to prevent it absorbing moisture and swelling up.