

Operating instructions



MTR



MTF





# Operating instructions

For Winterhalter MTR series rack conveyor dishwashing machines and  
for Winterhalter MTF series flight-type dishwashing machines  
(translation of the original German operating instructions)

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## 1 About these instructions





These operating instructions will give you a quick overview of the main functions and safe operation of your warewasher. Keep the operating instructions accessible. On our website [www.winterhalter.com/download-centre](http://www.winterhalter.com/download-centre) you can find the operating instructions in electronic form too.



Please carefully observe the safety notes listed here (▶ 3).

Chapter 19 describes how the dosing equipment for detergent and rinse aid must be connected. This chapter is intended for service technicians authorised by Winterhalter.

The following symbols are used in these instructions:

Symbol	Meaning
 <b>Danger</b>	Warning against potential serious or fatal injuries to persons if the precautionary measures described are not taken.
 <b>Warning</b>	Warning against potential minor injuries to persons or material damage if the precautionary measures described are not taken.
 <b>Caution</b>	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.
<b>IMPORTANT</b>	Important information is provided here.
<b>INFO</b>	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 Designated use

- MTR and MTF series dishwashing machines are exclusively to be used for washing crockery such as plates, cups, cutlery and trays in catering and similar companies.
- In MTF series dishwashing machines, the dishes are placed directly on the conveyor belt. Small items such as glasses or cutlery are sorted, put into washing racks and placed on the conveyor belt.
- In MTR series dishwashing machines, all of the dishes are sorted into racks and transported through the machine. Always wash using washing racks suitable for the dishes. Never wash without a washing rack.
- We recommend only washing glasses if the dishwashing machine is equipped with the special glasswashing programme. The reduced rinse temperature in this programme prevents premature glass corrosion.
- We recommend only washing containers such as catering containers if the dishwashing machine is equipped with the special container washing programme.
- MTR and MTF series dishwashing machines are technical implements for commercial use and are not intended for domestic applications.

### 2.1 Non-designated use

- Do not use the dishwashing machine for washing electrically heated cooking implements or items made from wood.
- Do not wash plastic items unless they are thermostable and will not be damaged by the detergent solution.
- Only use a suitable detergent to wash aluminium items such as pans, containers or trays, so as to prevent black discolouration.
- Winterhalter Gastronom GmbH will not accept liability for any damage caused by failure to use the dishwashing machine in accordance with the designated use.

## 3 Safety notes

### 3.1 General safety notes

- Read through the safety notes and operating instructions in this manual carefully. Winterhalter Gastronom GmbH does not assume liability or warranty in case of non-compliance with these safety and operating instructions.
- Use the warewasher only after you have read and understood the operating instructions. Allow the Winterhalter Customer Service Department to provide information about the operation and functioning of the warewasher.
- Do not climb or sit on the opened hinged door.
- Train the operating personnel as regards handling the machine and inform them about the safety notes. Repeat the training sessions at regular intervals to prevent accidents.
- For your safety, test the on-site residual current circuit breaker (FI) regularly by pressing the test button.
- Close the water stopcock in the building after completing work. There may be up to three stopcocks depending on the size of the machine and its level of equipment.
- Switch off the mains disconnecter in the building or the built-in mains disconnecter on the machine after completing work.
- Do not open any doors when the machine is washing. There is a risk that hot washing solution could spray out. Switch the machine off first.
- Keep the machine documents close to hand. The Winterhalter service technicians require the circuit diagram for repairs.
- Load sharp, pointed utensils so that they cannot injure anyone.
- Keep children away from the machine. The interior of the machine holds a solution of detergent in hot water at about 60°C.
- Only use your fingers and not sharp objects to operate the control panel.
- Do not place any towels or other objects on top of the machine, since suction openings are located there and they must not be covered up.
- Do not reach into the exhaust air pipe and do not cover the exhaust air pipe.
- Do not reach into the jet of the drying zone.
- During washing, do not reach inside the machine at either the infeed or outfeed end.
- Do not reach into the conveyor belt during washing.

### 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 requirement is tested and, in case of doubt, that the house 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).

### 3.3 Maintenance and repair work

- When performing installation, maintenance and repair work, unplug the machine from the mains supply.
- Maintenance work and repairs may only be performed by authorised Winterhalter service technicians. Improper maintenance or repairs may cause significant danger for the user, for which Winterhalter is not liable.
- Original spare parts must be used for repairs or to replace consumable parts. If original spare parts are not used, the warranty is invalidated.
- Operate this machine only when it is in perfect condition.
- A damaged or leaking machine may endanger your safety. In case of danger and/or defects, switch off the machine immediately. Switch off the on-site mains disconnecter (main 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 the malfunction.
- Contact an authorised service technician or your dealer if any other fault occurs.
- If the mains cable is damaged, to prevent hazards it must be replaced by Winterhalter or its Customer Service or another qualified person. The mains cable must be an oil-resistant, encased and flexible wire. The wire type H07RN-F is recommended.

### 3.4 Handling chemicals (detergent, rinse aid, descaler, etc.)

- When using chemicals, comply with the safety notes and recommended dosages printed on the packaging.
- Wear protective clothing, protective gloves and protective goggles when handling chemicals.
- Only use products that are suitable for commercial dishwashing machines. Such products are marked accordingly. We recommend using products developed by Winterhalter. These products are specially adapted for Winterhalter dishwashing machines.
- Do not mix different detergent products together as this could result in crystallisation and consequently cause irreparable damage to the detergent dosing device.
- Do not use any foaming products, e.g. hand soap, soft soap, manual wash-up cleaner. These products may not enter the machine, even through pre-washing of the dishes.

### 3.5 Daily cleaning and care

- Comply with the information on maintenance and care given in these instructions (► 8).
- Put on protective clothing and protective gloves before holding parts that are covered with tank water (filters, wash arms, curtains, etc.).
- Do not spray the machine or direct vicinity (walls and floor) with a water hose, steam jet or high-pressure cleaner.  
When cleaning the floor, take care to avoid flooding the substructure of the machine, in order to prevent the uncontrolled entry of water.
- Use a water hose and a brush (not a pressure washer) for cleaning the interior of the machine.
- Do not use any scouring powder or abrasive cleaning agents.
- During daily cleaning, make sure that no foreign objects that could start to rust have been left in the interior of the machine; these objects could even induce corrosion of the stainless steel material. Rust particles might come from non-stainless steel dishes, cleaning aids, damaged wire racks or water pipes that do not have corrosion protection.
- Clean the outside of the machine using a suitable stainless steel cleaner and a soft cloth. We recommend Winterhalter Gastronom stainless steel cleaner and stainless steel polish.

## 4 Before working with the machine

- Have the machine installed by your Winterhalter service technician or dealer. Comply with chapter 9 if the installation location is not frost-free.
- Have the machine connected by authorised technicians in accordance with the locally applicable standards and regulations (water, waste water, electricity, ventilation).
- In addition, have the machine connected to the steam and condensation pipes if it is heated by steam.
- Have the machine commissioned by a service technician authorised by Winterhalter. At the same time, have yourself and your operating personnel trained in how to operate the machine.

### 4.1 Checking for completeness

- Refer to the delivery note to check the delivery is complete and look for any transport damage.
- Immediately inform the transport company, the insurance company and the manufacturer in case of damage.

### 4.2 Initial start-up

- After the machine has been correctly connected to the supply lines in the building, contact the Winterhalter branch that is responsible for the location in order to request initial start-up and instruction in how to operate the machine.

## 5 Product description

In MTR and MTF series dishwashing machines, various kinds of dishes are automatically transported through various zones, washed and dried. Detergent, rinse aid and any additional chemicals are dosed using separate dosing equipment. There are prepared connection terminals for connection purposes (► 19). The machines are operated using a touchscreen. Symbols and animations guide you through the menus, most of which are linguistically neutral.

### Explanation of terminology used

Multi-tank dishwasher:	Dishwashing machine with at least 2 tanks; only the terms “machine” or “dishwashing machine” are used subsequently in these instructions.
MTF:	Multi-tank dishwasher with flight-type transport system
MTR:	Multi-tank dishwasher with rack conveyor transport system
Dishes:	General term for plates, cups, cutlery, trays, etc.



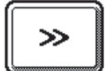


## 6 Controls

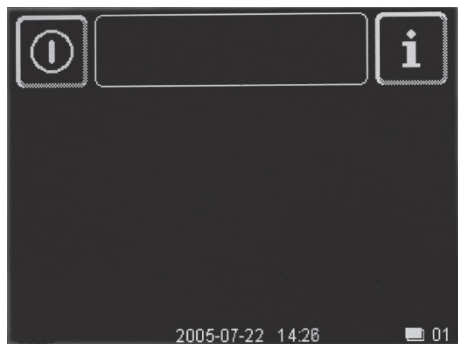
The machine is operated using a touchscreen with touch-sensitive buttons (keys).

When you touch the buttons, actions are triggered or information is displayed. Each time you press a button, this is confirmed by an acoustic signal.

**The appearances of the buttons have the following meanings:**

	Thin dotted frame; dark background	Button cannot be pressed (is not available / cannot be activated)
	Thick white frame; dark background	Button can be pressed (is available / can be activated)
	Thick white frame; white background	Button has been pressed / activated

### 6.1 Switching on the screen



Screen 01

- Touch the screen surface with your finger.
  - ⇒ The screen switches on (screen 01) and switches off after a short time (to prevent the machine being switched on inadvertently during cleaning).

**INFO:** The time before switching off can be changed by the Winterhalter service technician (► 18.1).

### 6.2 Menu levels

There are two menu levels, one of which is protected by a PIN. Each screen has a number at the bottom right to facilitate understanding if there are any queries.

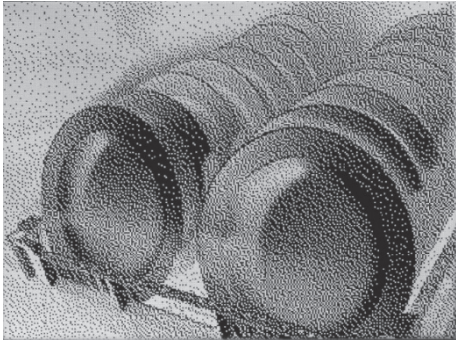
#### Menu level for the washing personnel

This menu level mostly has linguistically neutral symbols to make it as easy as possible to operate the machine and instruct the personnel.

#### Menu level for the kitchen manager

The menu level for the kitchen manager can be accessed after entering a PIN. There, it is possible to make settings and call up stored data.

### 6.3 Screen saver



A screen saver appears if you do not make any screen entries for a certain length of time when the machine is switched on. The screen goes dark if a further period of time elapses without any entries. Touching the screen switches it back on.

**INFO:** The screen saver does not appear unless the machine is filled. There is no screen saver in the PIN menu (► 13). The times for the screen saver can be changed by the Winterhalter service technician (► 18.1).

## 7 Operation

### 7.1 Making ready for operation

This explains how to make the machine ready for operation. You can also program the machine to switch on automatically at a certain time (► 13.4) and be ready to operate about 15 – 25 minutes later (depending on the water inlet temperature and the machine size).

#### 7.1.1 Before switching on the machine

- Open the water stopcock in the building. There may be up to three stopcocks depending on the size of the machine and its level of equipment.
- Switch on the mains disconnecter in the building or the built-in mains disconnecter on the machine.
- For your own safety, test the residual-current circuit breaker (RCCB) installed in the building by pressing the test button.
- Open the doors and check that all filters (strainers, filter inserts), barrier curtains and washing arms are in place.
- Check that the grease filter at the machine infeed is in place.
- Close all doors.



#### Warning

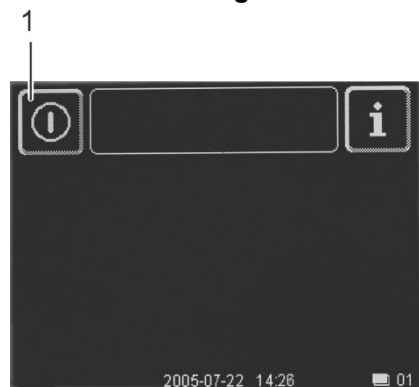
When using chemicals, comply with the safety notes and dosage recommendations printed on the packaging.

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

Do not mix different detergent products together.

- Check whether there is detergent or rinse aid in the storage tanks (drum or container). Top them up in good time or renew the storage tanks so that the washing result will not be impaired. Depending on the machine equipment level, the screen may also display when the storage tanks are empty.
- If there are any swivelling table elements (e.g. roller conveyor) present, fix them in their working position.

### 7.1.2 Switching on

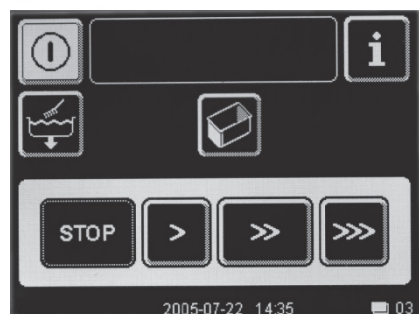


- Touch the screen surface with your fingertips.
  - ⇒ Screen 01 appears.
- Press the button (1) for about 2 seconds until the next screen menu appears.

Screen 01



- ⇒ The tanks of the machine are automatically filled and heated at the same time.
- ⇒ Detergent is dosed into the last washing tank (assuming dosing equipment is connected). Detergent is dosed into the washing tanks upstream of this one during ongoing operation.
- ⇒ Once the rated level has been reached in all tanks, the animated temperature symbol appears on the screen until the rated temperatures have been reached.






Screen 03

- ⇒ The temperature symbol disappears as soon as the rated temperatures have been reached. The machine is ready (screen 03).

**INFO:** The machine is supplied from the factory programmed so that it can be started as soon as the rated level in the tanks is reached. If you are working according to HACCP directives, the Winterhalter service technician can program the machine so the operating personnel cannot start it until the rated temperatures have also been reached.

## 7.2 Washing with the standard programmes

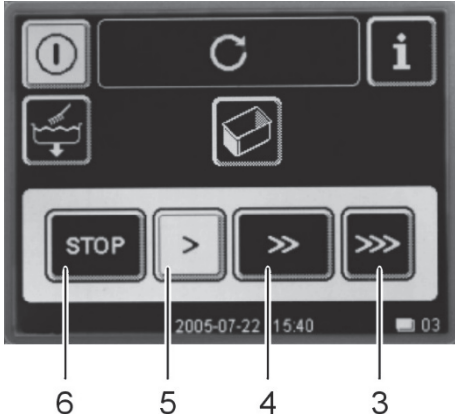
The machine can be operated with three different transport speeds.



	Intensive programme; Transport at slow speed	For heavily soiled dishes
	Normal programme; Transport at medium speed	For normally soiled dishes
	Rapid programme; Transport at high speed	For lightly soiled dishes

The normal programme and the intensive programme ensure the contact time between the dishes and the tank water of at least 2 minutes as required by DIN 10510.

The rack capacity or plate capacity per hour depends on the machine model.

## 7.2.1 Starting / stopping transport



- Touch one of the three buttons (3 / 4 / 5) for the transport speed.
  - ⇒ The drive system starts. This is indicated by the  symbol.
- If you want to change the transport speed: Touch one of the other buttons (3 / 4 / 5).
- If you want to stop the drive system: Touch the “STOP” button (6).
- Touch the  button if you want to wash containers such as catering containers (▶ 7.2.5)

## 7.2.2 Having the transport run backwards

In case any object gets jammed in the drive system, you can have the conveyor belt / push bar run backwards.

- Press the “STOP” button (6) for 5 seconds.
  - ⇒ The conveyor belt / push bar runs backwards for a defined distance and then stops again.
- Remove the object.

## 7.2.3 Washing (MTF series machines)

- Remove general debris (left-over food, serviettes, etc.) from the crockery.
- Place plates, trays and the like onto the conveyor belt with their hollow profile facing towards the machine.
- Place bowls on the conveyor belt with their hollow side downwards.
- Sort cups, glasses and cutlery into suitable washing racks and place them on the conveyor belt.

### Examples



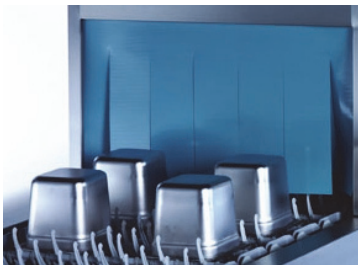
Plates



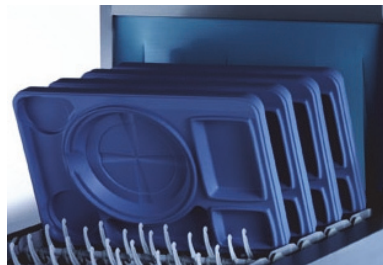
Cups



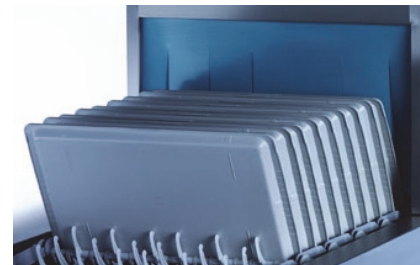
Cutlery



Small containers



Bases



Trays

**INFO:** Bars are available as accessories for placing between the fingers of the conveyor belt. The washing racks can then be placed on the bars.

**INFO:** The individual zones switch on automatically as soon as the crockery enters the zone.

- If possible, do not remove the washed crockery from the conveyor belt until it reaches the end of the unloading zone so that it has sufficient time to dry by itself. For continuous washing, you should remove the crockery before it actuates the stop switch and the transport is switched off.

**IMPORTANT:** See also point 10 “Organisation of the washing process” for information about optimum working sequences and about hygiene in the washing kitchen. The leaflets produced by the VGG (Verband der Hersteller von gewerblichen Geschirrspülmaschinen e.V. / Association of Manufacturers of Commercial Dishwashing Machines, based in Hagen, Germany) are helpful in this regard.

#### 7.2.4 Washing (MTR series machines)

- Remove general debris (left-over food, serviettes, etc.) from the crockery.



- Place plates, trays and the like into the washing racks with their hollow profile facing forwards.
- Place bowls in the washing racks with their hollow side downwards.
- Sort cups, glasses and cutlery into suitable washing racks.
- Spray the crockery with cold water using a hand shower so that as little debris as possible is carried into the machine. (More debris equates to more detergent consumption).
- Push one washing rack after another into the machine.

**INFO:** The individual zones switch on as soon as a washing rack enters the zone.

- Leave the washing racks on the outfeed table for as long as possible until the crockery is dry. For continuous washing, however, you should remove the washing racks from the outfeed table before the stop switch is actuated and the transport is switched off.

**IMPORTANT:** See also section 10 “Organisation of the washing process” for information about optimum working sequences and about hygiene in the washing kitchen. The leaflets produced by the VGG (Verband der Hersteller von gewerblichen Geschirrspülmaschinen e.V. / Association of Manufacturers of Commercial Dishwashing Machines, based in Hagen, Germany) are helpful in this regard.

#### 7.2.5 Container programme



##### Application:

- A programme for washing containers such as catering containers

##### Default settings:

- Washing with medium transport speed (>>)
- The other speeds (>; >>>) can also be selected after the start
- The pump in the rinse zone is switched off

## 7.2.6 Breaks in operation

- Do not switch the machine off during breaks, so as to maintain the rated temperatures. The drive system continues to run for about 5 minutes after the crockery has exited the rinse zone. The selected transport speed remains set. You can continue working straight away after the break.

### After the break in operation:






- MTF series: Start the conveyor belt drive by pressing the round button on the end of the machine or by using the screen, in which case you must touch one of the buttons for the transport speed.

- MTR series: Push a washing rack past the transport pawls into the machine until the drive starts.

## 7.3 Washing with the special programmes

Various special programmes are available depending on the machine equipment level. The Winterhalter service technician can alter the default settings if required.

### Available special programmes:

	Glasswashing programme
	Rinsing with osmosis water (can be switched on)
	Rinsing with softened water and osmosis water (cannot be changed, no screen display)
	Glasswashing programme and rinsing with osmosis water (can be switched on)

### 7.3.1 Glasswashing programme

#### Default settings:

- Washing with slow transport speed
- The other speeds can also be selected after the start
- Pre-rinse zone (if installed) switched off
- Rinsing with osmosis water (if connected)
- Reduced rinse temperature
- Heating of the drying zone (if installed) switched off; only with blower



**INFO:** Touch the  button if you do not want rinsing to be performed with osmosis water.

### 7.3.2 Rinsing with osmosis water (can be switched on)

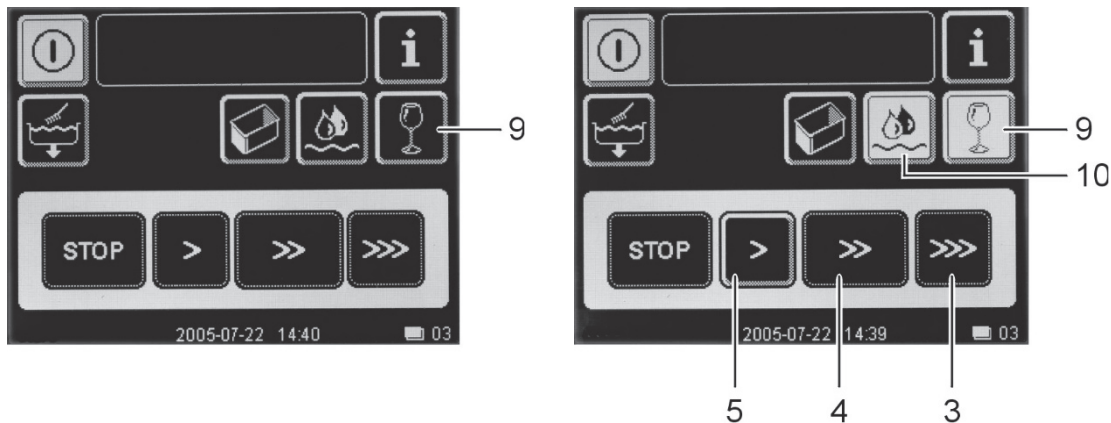
#### Default setting:

- Preselected in the glasswashing programme
- Can be switched on for all other programmes
- Both rinse lines are operated with osmosis water as soon as the softened water has been displaced by osmosis water in the pipes of the rinse system.

### 7.3.3 Rinsing with softened water and osmosis water (cannot be changed)

In all programmes, rinsing is performed half and half with softened water and osmosis water. This feature is not displayed on the screen.

7.3.4 Example: Washing in the glasswashing programme and rinsing with osmosis water (can be switched on)




➤ Touch button (9).

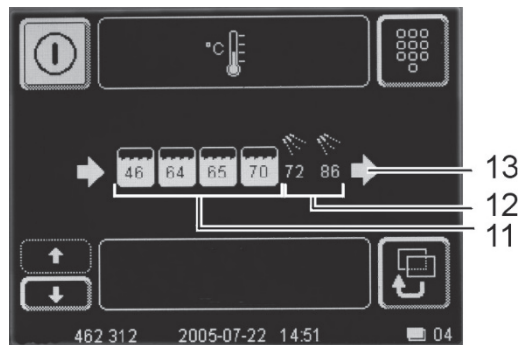
**Result**

- ⇒ Button (9) is active
- ⇒ Button (10) is active. Rinsing is done with osmosis water.
- ⇒ Button (5) is available; buttons (3) and (4) are blocked

- Touch button (10) if you do **not** want rinsing to be performed with osmosis water
  - ⇒ Button (10) is dark.
- Touch button (5).
  - ⇒ The conveyor belt or the rack conveyor runs at slow speed.
- Sort the glasses into suitable washing racks.
- Place the washing racks onto the conveyor belt or push the washing racks into the machine.
- Touch button (3) or (4) if you want to wash at a higher transport speed.
- Remove the washing racks at the end of the unloading zone or the outfeed table.

## 7.4 Routine checks

- Touch the  button to call up the INFO menu (▶ 12).



**INFO:** The display depends on the size of the actual machine

- ⇒ The screen shows the following information in symbolic form:
  - (11) The tanks with the current temperatures
  - (12) Rinsing with the current temperatures for lines 1 and 2
    - INFO:** Only one temperature is displayed for machines with reduced rinse or for steam-heated machines, as the temperatures is identical for both rinse lines.
  - (13) Working direction of the machine
  - Fault messages (if installed)
  - Events (e.g. Machine ON, Machine OFF, Ready, Start >, Start >>, Start >>>; STOP, etc.)
- Tell the Winterhalter service technician about the fault messages.
- Check the displayed values with the temperatures specified by DIN 10510. (▶ 18.1).



**Warning**

When using chemicals, comply with the safety notes and dosage recommendations printed on the packaging.  
Wear protective clothing, protective gloves and protective goggles when handling chemicals.  
Do not mix different detergent products together.

- Check whether there is detergent or rinse aid in the storage tanks (drum or container). Top them up in good time or renew the storage tanks so that the washing result will not be impaired.
- Check that the crockery is cleaned.



**Warning**

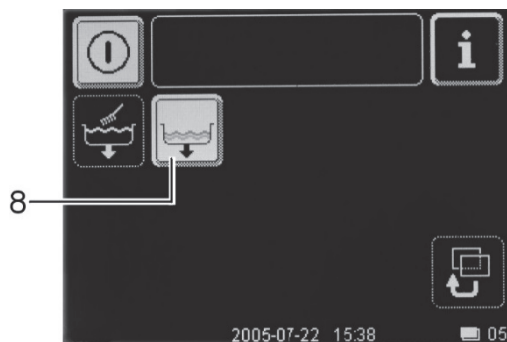
Put on protective clothing and protective gloves before holding parts that are covered with tank water (filters, washing arms, curtains, etc.).

- Open the doors and clean the strainers if they are excessively contaminated. There is no need to drain the water in order to do this.
- Reinsert the strainers.
- Clean the interior of the machine if it is excessively contaminated.
- Close the doors.
- Drain the tank in the first zone if it is excessively contaminated (▶ 7.5).



## 7.5 Water change in zone 1

If the tank in the first zone is very heavily contaminated, it can be drained separately from the other tanks and refilled.




- Touch button (7).
  - ⇒ This stops the drive.
  - ⇒ Screen 05 appears.
- Touch button (8).
  - ⇒ The tank of the first zone is drained, refilled and heated up.
- Touch button (8) again if you want to interrupt the procedure.

**INFO:** For larger machines, the Winterhalter service technician can alter the programming if requested so that several tanks can be drained.

## 7.6 Switching off the machine

- Press the on/off button (1).
  - ⇒ The screen goes dark and the machine is switched off. The tanks remain filled, but they are no longer kept up to temperature.

 <b>Warning</b>	The machine remains live until the built-in mains disconnect or the mains disconnect in the building is switched off.
---	---

- Proceed as described in point 8.1 if you want to drain the tanks and clean the machine at the end of a working day.

## 8 Maintenance and care



Do not spray the machine or direct vicinity (walls and floor) with a water hose, steam jet or high-pressure cleaner.

**Warning**

When cleaning the floor, take care to avoid flooding the substructure of the machine, in order to prevent the uncontrolled entry of water.

### 8.1 Every day

#### 8.1.1 Cleaning the grease filter



The grease filter protects the exhaust air system and the heat exchanger (if installed) against a buildup of grease. The grease filter must be cleaned daily in order to function properly.

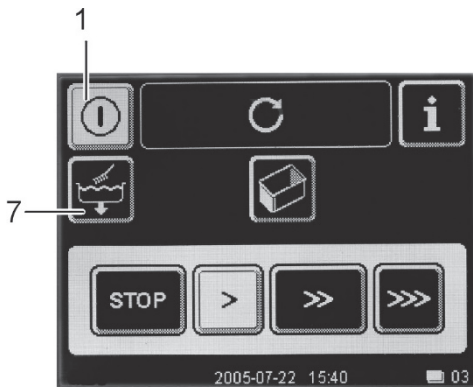
- Remove the grease filter.
- Place the grease filter onto a washing rack or the conveyor belt and clean it in the machine at slow transport speed (>).
- Reinsert the grease filter.

#### 8.1.2 Cleaning programme

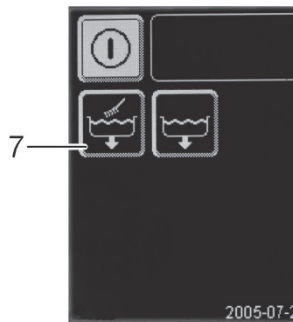
The machine is equipped with a cleaning programme that assists you in cleaning the interior of the machine. The programme runs automatically. After its first part, you can clean the interior of the machine manually with a hose and brush if required. The interior is automatically rinsed and drained during the second part.

**INFO:** If one of the doors is opened while the cleaning programme is running, the programme stops and has to be restarted.

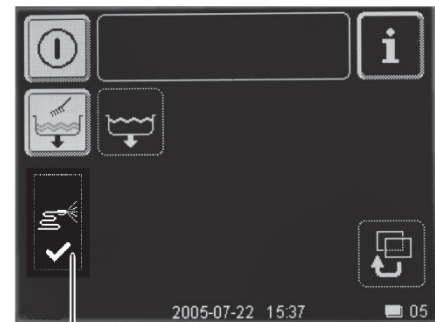
#### Starting the cleaning programme



Screen 03



Screen 05



25

Screen 05

- Touch button (7).
  - ⇒ This stops the drive.
  - ⇒ Screen 05 appears.
- Touch button (7). Touch button (7) again if you want to interrupt the procedure.
  - ⇒ The cleaning programme is started:
    - Button (25) “Clean interior” appears but cannot be pressed yet.
    - The circulating pumps are activated in order to rinse out the interior of the machine with tank water.
    - The heat exchanger is rinsed out with hot water (OPTION).
    - The drive system runs.

- Roof cleaning jets clean the interior of the machine with hot water from the rinse zone.
- All tanks are drained.
- The “Clean interior” button (25) flashes once all the tanks have been emptied. If required, you can now clean the interior manually with a hose and brush. The time shown on the button counts down from 5 minutes. The time displays when the cleaning programme will automatically finish, assuming you do not want to clean the interior manually.



25

If you do **not** want to clean the interior manually:

- Touch button (25).
  - ⇒ All tanks are drained, washed out with hot water and drained again.
  - ⇒ The machine switches itself off afterwards.

### Cleaning the interior



**Warning**

Put on protective clothing and protective gloves before holding parts that are covered with tank water (filters, washing arms, curtains, etc.).

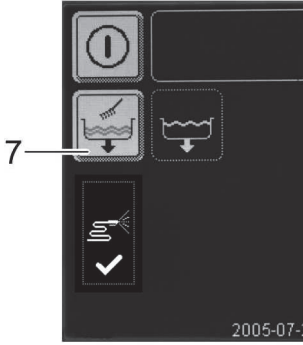
- Open the doors and remove the curtains.
- Clean the curtains.



- Remove the washing arms (individually or in their cassette).
- Wash out the washing arms if the jets are blocked.

- Remove and clean the strainers and the filter inserts over the tank floor drains.
- If the interior of the machine is dirty: Clean the interior of the machine with a sponge and a brush. If necessary, you can spray the interior with a hose.
- Use a brush to clean the filters covering the pump inlet openings. The filters can be removed if necessary.
- Reinsert the filter inserts into the tank floor drains.
- Reinsert the strainers.
- Reinsert the washing arms.
- Reinsert the curtains. The curtains are designed (coded) so they cannot be inserted in the wrong position.
- Close the doors.

### Finishing the cleaning programme



- Close the doors.
- Touch button (7).
  - ⇒ All tanks are drained, washed out with hot water and drained again.
  - ⇒ The machine switches itself off afterwards.

### Cleaning the outside of the machine

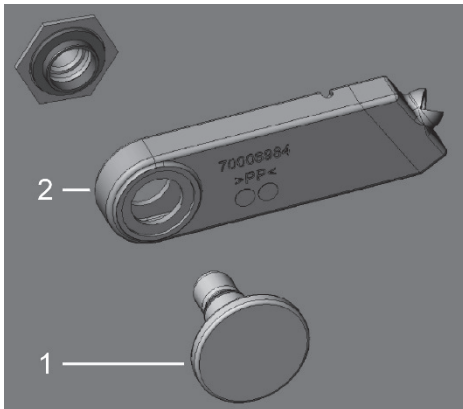
- Close the stopcock in the water pipe in the building. There may be up to three stopcocks depending on the size of the machine and its level of equipment.
- Switch off the mains disconnecter in the building or the built-in mains disconnecter on the machine.
- MTF series machines:
  - Clean the filters in the loading zone.
  - Clean the floor filter in the loading zone.
  - Clean the loading and unloading zones.
- MTR series machines:
  - Clean the connected table system.
- Clean the exterior surfaces with a stainless steel cleaner and stainless steel polish.

#### 8.1.3 Checking external water treatment

- Check whether sufficient regeneration salt has been added.

## 8.2 Every month

### 8.2.1 Cleaning the roof cleaning jet



**INFO:** There is a roof cleaning jet in each of the machine's zones.

#### Cleaning

- Unscrew the knurled screw (1).
- Remove the roof cleaning jet (2) and rinse it out thoroughly with water.
- Check that the jet is free of blockages.
- Re-install the roof cleaning jet. The marking "TOP" must point upwards. The part number must be able to be read from below.

### 8.2.2 Cleaning the exhaust air system

- Remove the grease filter.
- Clean the exhaust air pipes with a water hose and hot water. The water flows back into the tank in the last zone. If necessary, use a degreasing agent and a long brush.

### 8.2.3 Descaling

If the machine is operated with very hard water and without corresponding water treatment, limescale can build up in the boilers, the interior of the machine and in all pipes that carry water. Limescale deposits and the incorporated dirt and grease residues represent a hygiene risk and the limescale can cause the heating elements to fail. Therefore, it is essential to remove these deposits at regular intervals.

The job of correctly descaling the boilers and all pipes that carry water should be entrusted to a Winterhalter service technician.

However, you can descale parts of the interior of the machine yourself by following the instructions below.



#### Caution

If the machine is equipped with a heat pump, it is essential for the machine to be connected to softened water so as to prevent any limescale buildup in the heat exchanger.

- Drain the machine (► 8.1.2).
- Interrupt the detergents dosing (e.g. pull out the suction tube or switch off the dosing equipment) in order to prevent chlorine gas from being formed if the detergent containing active chlorine comes into contact with descaler.
- Fill the machine (► 7.1.2).



#### Warning

When using chemicals, comply with the safety notes and dosage recommendations printed on the packaging.

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

- Add the descaler to each of the tanks of the machine in accordance with the recommended dosage.
- MTR series machines: Run the machine with empty washing racks until all the limescale deposits have been removed.
- MTF series machines: Put plates onto the conveyor belt and run the machine until all the limescale deposits have been removed.
- It may be necessary to dose additional descaler after an operating time of about 10 minutes.
- Drain the machine (► 8.1.2).



#### Caution

The descaler is not allowed to remain in the machine for several hours.

- Fill the machine (► 7.1.2).
- MTR series machines: Run the machine with empty washing racks in order to remove descaler residue from the washing system.
- MTF series machines: Put plates onto the conveyor belt and run the machine in order to remove descaler residue from the washing system.
- Drain the machine (► 8.1.2) again.
- Restore the detergents dosing to operational status.

### 8.3 Maintenance by customer service



We recommend having the machine serviced at least twice a year by a Winterhalter service technician. This service should also include having components subject to wear or ageing being checked and renewed if necessary.

Examples of such components:

- Water supply hoses
- Dosing tubes
- Splash curtains
- Door seals

Winterhalter offers a service contract that includes this work, amongst other jobs.

In the electronic control unit, it is possible to program the maintenance interval in operating hours and at what number of remaining operating hours the symbol for maintenance/service should be displayed. (► 18.1) Contact your Winterhalter service technician.

### 8.4 Changing the detergent product

If you want to use a different detergent product, you will have to rinse out the suction and pressure hose with fresh water. This is the case even if the new detergent product is from the same manufacturer.

Mixing different detergent products together can result in crystallisation and cause the dosing equipment to malfunction.

Winterhalter Gastronom GmbH will not accept any liability or honour any product guarantees if this instruction is not complied with.

As a rule, a new detergent product means it is also necessary to re-adjust the dosing equipment. The Winterhalter service technician can assist you in this.

#### Procedure:



#### Warning

When using chemicals, comply with the safety notes and dosage recommendations printed on the packaging.

Wear protective clothing, protective gloves and protective goggles when handling chemicals. Do not mix different detergent products together.

- Remove the suction tube from the detergent drum and insert it in a container filled with fresh water.
- Drain the dishwashing machine (► 8.1.2) and refill it again (► 7.1.2). The suction and pressure hose is rinsed out with water.
- Insert the suction tube into the container with the new detergent product.
  - ⇒ Detergent is dosed into the washing tanks as soon as you start operating the machine again.

## 9 Taking out of service for a long time

Comply with these instructions if you need to take the machine out of service for a long time (company holidays, seasonal working).

- Drain the machine using the self-cleaning programme (► 8.1.2).
- Clean the machine as described in point 8.1.
- Leave the machine doors open.
- Close the water stopcock in the building. There may be up to three stopcocks depending on the size of the machine and its level of equipment.
- Switch off the mains disconnecter in the building or the built-in mains disconnecter on the machine.

If the machine is installed in a room that is not protected against frost:

- Contact a Winterhalter service technician and request frostproofing of the machine:
  - The technician must drain the water from the boilers and blow out the entire rinse system with compressed air.

### Taking back into service

- Open the water stopcock in the building. There may be up to three stopcocks depending on the size of the machine and its level of equipment.
- Switch on the mains disconnecter in the building or the built-in mains disconnecter on the machine.
- Switch on the machine.
  - ⇒ The boilers and the rinse system fill automatically. The heating elements in the boilers do not start heating until the minimum level has been reached in the rinse zone tank, in order to protect against burning through.

### 10 Organisation of the washing process

MTR and MTF series machines fulfil the requirements of DIN 10510 (“Food hygiene – Commercial dishwashing with multitank-transport dishwashers – Hygiene requirements, procedure testing”).

You should observe some organisational aspects to enable these machines to achieve hygienically correct results. Additional information is also contained in the leaflets produced by the VGG (Verband der Hersteller von gewerblichen Geschirrspülmaschinen e.V. / Association of Manufacturers of Commercial Dishwashing Machines, based in Hagen, Germany; [www.vgg-online.de](http://www.vgg-online.de)).

#### Structural requirements

- The washing area must be separate from the food preparation areas.
- The “clean” side must be separated from the “dirty” side, to prevent the cleaned crockery from becoming soiled again.
- The transport paths for dirty and clean crockery must not intersect.
- The air admission system must be designed to avoid unduly inconveniencing the personnel.
- The air for drying the dishes must have a low germ load.

#### Organisation

- The time during which food residue can dry onto the dishes should be kept as short as possible so as to prevent bacteria buildup and to facilitate cleaning.
- Remove left-over food and waste from the crockery before you wash it.
- Pre-sort the crockery.
- Load the washing racks so that the crockery does not overlap. It must be possible for the water jets to reach all surfaces. Covered surfaces cannot be cleaned.
- Soak the cutlery before you wash it.
- Different people must be used for loading dirty dishes into the machine and removing the cleaned crockery from the machine.
- Wait until the cleaned dishes have air dried.
- Do not use tea towels.
- Do not stack wet crockery.
- People removing the cleaned crockery must have clean hands or wear clean gloves.
- Clean and disinfect hands with soap and hand disinfectants. Use disposable hand towels.

#### Requirements on the dishwashing machine

- The temperatures in the individual zones must be within the rated values (► 18.1). Regularly check the temperatures (► 7.4).  
Deviations are logged in the hygiene logbook (► 13.2).
- The detergent concentration must be stable and sufficiently high. Follow the information provided by the manufacturer. Regularly check the fill levels of the containers (detergent, rinse aid, disinfectant component).  
Deviations are logged in the hygiene logbook (► 13.2).
- Deposits and coatings in the machine must be removed by thorough cleaning. Deposits represent a hygiene risk, because bacteria can build up there. Eliminate the cause of the deposits.

#### Requirements on the dishes

- Remove damaged crockery from the washing cycle.
- Use crockery that has smooth surfaces.
- Use crockery that does not have deep recesses, to allow the water to reach the whole of the surface area.
- Plastic crockery must be heat resistant, resistant to deformation and free from hairline cracks.
- Water should be able to run off easily, so that the crockery can quickly dry by itself.
- Dishes with deposits must be thoroughly cleaned because deposits can serve as a breeding ground for bacteria. The cause of deposits must be ascertained and eliminated.



## 11 Malfunctions

This explains what action to take in case of malfunctions. The tables provide information about possible causes and notes on remedial action. Contact the Winterhalter service technician if you are unable to rectify the fault yourself.



**Danger**

### **DANGER! Risk of fatal injury due to live components!**

Disconnect the machine from the mains and check for the absence of voltage before starting any electrical work on the machine.

Do not open any machine covers or machine components if you would require a tool to do so. Electric shock hazard.

Have all work on the electrical system performed by a Winterhalter service technician.

The machine must be disconnected from the electrical mains first.

### 11.1 Malfunctions; display by symbols on the screen

Symbol	Meaning	Possible cause	Remedy
	Door is open		Close all doors MTF: Insert the panels at the end of the loading/unloading zones.
	Detergent drum is empty <sup>1</sup>		Renew the container.
	Rinse aid drum is empty <sup>1</sup>		Renew the container.
	Detergent under dosage <sup>2</sup>	Detergent drum is empty	Renew the container.
	Stop switch blocked	Crockery / washing racks are backing up at the end of the conveyor belt or the outfeed table	Release the stop switch (remove the crockery, washing rack)
	Lack of water	Water stopcock(s) closed	Open the stopcock(s)
		The dirt filter in the dirt trap is blocked	Have the dirt trap cleaned by a service technician or have a new dirt trap installed.
		Solenoid valve defective or blocked; feed pump defective	Call customer service
	Water drain blocked	Drain blocked	Clean the drain
	Error on RoMatik 420 <sup>3</sup>	See RoMatik 420 device documentation	Call customer service
	EMERGENCY OFF switch pressed		Release the EMERGENCY OFF switch
	Energy optimisation <sup>4</sup>	Energy optimisation system in the building switches individual electrical loads (heating elements) off.	Wait until the energy optimisation system in the building switches itself off

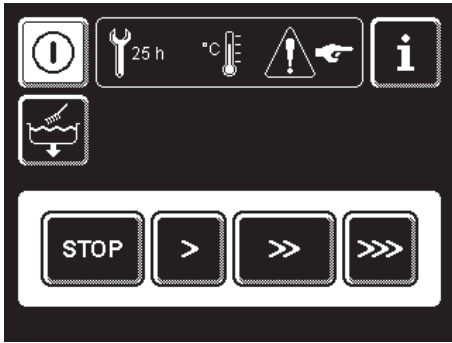
<sup>1</sup> This is only displayed if the container has a container empty indicator that is connected to the machine.


<sup>2</sup> This is only displayed if the dosing equipment has a conductivity detection function. The fault must be transferred from this dosing equipment to the machine electronic control unit.


<sup>3</sup> This is only displayed if the error output on the RoMatik 420 is connected to the MTR / MTF.


<sup>4</sup> This is only displayed if the machine is connected to an energy optimisation system.

### 11.2 Malfunctions; display by fault code on the screen



 appears when malfunctions are not shown by a symbol (▶ 11.1) on the screen.

- Touch the  button.
  - ⇒ Fault messages appear with a fault code.
- Inform the Winterhalter service technician about faults that occur.

The  symbol reminds you when the next service is due (▶ 8.3).

### 11.3 Malfunctions; poor washing result

Crocery is not cleaned	No or insufficient detergent dosed	Set the dosing according to the information provided by the manufacturer Check dosing lines (kinks, break, etc.) Renew container Check the dosing equipment
	Crockery not sorted correctly	Do not stack crockery items on top of one another
	Washing arm jets blocked	Remove washing arms and clean jets
	Transport speed too fast	Set a slower speed
	Temperatures too low	Check the temperatures (▶ 12), call customer service if the rated values (▶ 18.1) are not achieved
Deposits form on the crockery	Limescale deposits: Water too hard	Check external water treatment / set correctly Perform thorough cleaning
	Starch deposits: Excessively high temperatures in manual precleaning (shower)	Temperature should be 30 °C at most
Crocery does not dry by itself	No or insufficient rinse aid dosed	Set the dosing according to the information provided by the manufacturer Check dosing lines (kinks, break, etc.) Renew container Check the dosing equipment
	Dry zone does not function or temperature set too low	Call customer service
MTR series: Washing racks are not transported	Table limit switch blocked	Remove washing rack
	Slip clutch not set correctly	Call customer service
MTF series: Conveyor belt does not start	Conveyor belt limit switch blocked	Remove crockery
	Conveyor belt blocked	Inspect conveyor belt If something is jammed, activate conveyor belt reversal: Press the "STOP" button for 5 seconds. The conveyor belt moves backwards through a short distance.

## 12 Info menu

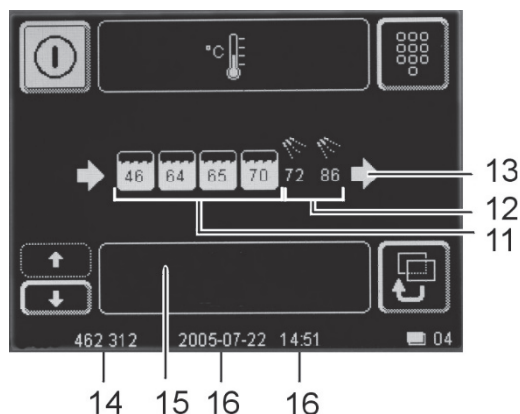
### In the Info menu, you can:

- Read off the current tank and rinse temperatures
- Read off fault messages and events
- Read off the machine type and machine number



### How to call up the Info menu:

➤ If the machine is switched off or the screen is dark: Touch the screen.

➤ Touch the  button.



Screen 04

- ⇒ The screen (screen 04) shows the following:
- (11) – The tanks with the current temperatures
  - (12) – Rinsing with the current temperatures for lines 1 and 2  
**INFO:** Only one temperature is displayed for machines with reduced rinse or for steam-heated machines, as the temperatures is identical for both rinse lines.
  - (13) – Working direction of the machine
  - (14) – Machine type (MTR / MTF) and machine number
  - (15) – A list of fault messages and events. You can scroll up and down the list with the  and  buttons.
  - (16) – Date, time

From the Info menu, it is possible to access the PIN menu.

## 13 PIN menu

### In the PIN menu, you can:

- Display data (hygiene logbook) ▶ 13.2
- Display operating data ▶ 13.3
- Program automatic start-up ▶ 13.4
- Make general settings (date, time, contrast, language) ▶ 13.5
- Enter addresses for transmission via GSM module (OPTION) ▶ 14
- Enable/disable the HighTemp mode ▶ 15

**INFO:** You cannot operate the machine whilst the PIN menu is active.

### How to call up the PIN menu:



➤ If the machine is switched off or the screen is dark: Touch the screen.

➤ Touch the  button.

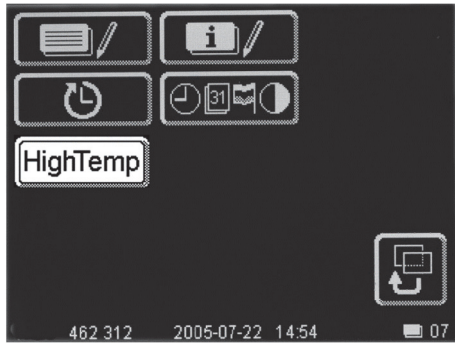
➤ Touch the  button.








Screen 06

- ⇒ Screen 06 appears.
- Enter the PIN 1575.
    - ⇒ Every digit you enter is displayed as \*.
    - You can delete any incorrect digits by pressing the  button.
  - Confirm with the  button.
    - ⇒ The PIN menu appears (▶ 13.1)
    - The “!” symbol appears on the screen if you enter the wrong PIN.
    - Entries are prevented for 2 minutes if an incorrect PIN is entered five times in succession.

### 13.1 The PIN menu



-  Hygiene logbook ► 13.2
-  Operating data ► 13.3
-  Automatic start-up ► 13.4
-  Date, time, contrast, language ► 13.5
-  HighTemp mode (OPTION) ► 15

### 13.2 Hygiene logbook

In the hygiene logbook, you can:

- Call up all operating statuses and actions during a day in chronological sequence.
- Call up all HACCP and hygiene-relevant data.



The list starts with the current date and the first event on this day. After this, the subsequent events of this day are displayed and then the events of the days before.

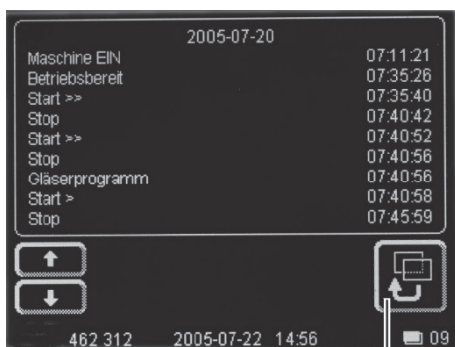
Together with your Winterhalter service technician, you can define which data should be stored. On request, you can have deviations from the rated values displayed on the screen so you can respond to malfunctions in good time.

A table with the factory settings can be found in point 18.1 Technical data.

**INFO:** Once the memory capacity has been exhausted, the oldest data is deleted as soon as new data is added.

**How to call up the hygiene logbook:**

- Access the PIN menu:   PIN 1575 
- Touch the  button.



13  
Screen 09

- ⇒ The screen (screen 09) with the hygiene logbook appears:
  - The list starts with the current date and the first event on this day.
  - This is followed by the events of the day before.
- You can scroll up and down the list with the ↑ and ↓ buttons.
- Touch the back button (13) to exit the hygiene logbook.

**INFO:** The texts are displayed in the language selected as described in point 13.5.3.

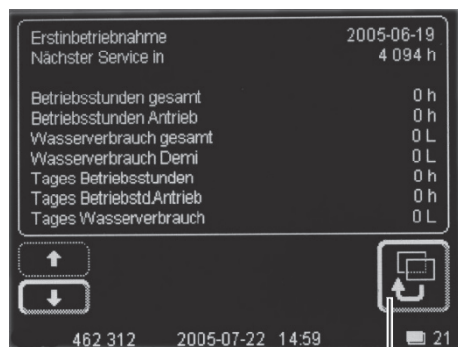
### 13.3 Operating data

#### Here, you can:

- Read off all operating data.

#### How to call up the operating data:

- Access the PIN menu:   PIN 1575 
- Touch the  button.



13  
Screen 21

The screen (screen 21) with the operating data appears.

- Initial start-up Date
- Next service in x hours
- Op. hours total x hours
- Op. hours drive x hours
- Water consump.total x litres
- Water consump.demin. x litres
- Op.hours/day x hours
- Op.hours/day drive x hours
- Water consump./day x litres
- Wtr cons./day demin. x litres
- Water reg. capacity x litres

You can scroll up and down the list with the ↑ and ↓ buttons.

From September 2012, the "Rinse water volume total" and the "Rinse water volume/day" will be displayed instead of the "Water consump. total" and the "Water consump./day".

On machines with additional osmosis water connection, the "Rinse water volume demin. total" and the "Rinse water volume/day demin." will be displayed instead of the "Water consump. demin." and the "Wtr cons./day demin.".

On request, the Winterhalter service technician can restore the previous display

- Touch the back button (13) to exit the operating data.

**INFO:** The texts are displayed in the language selected as described in point 13.5.3.

### 13.4 Automatic start-up

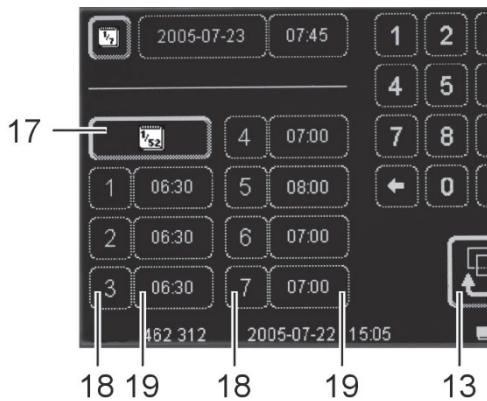
#### Here, you can:

- Enter when the machine should start filling itself and heating up automatically.
- Enter a different time for each day of the week.
- Enter a time for a certain date that is different from the weekly programme. This date takes precedence over the weekly programme.
- Make sure that the machine doors are closed at the time when automatic start-up should occur.

## How to program automatic start-up:

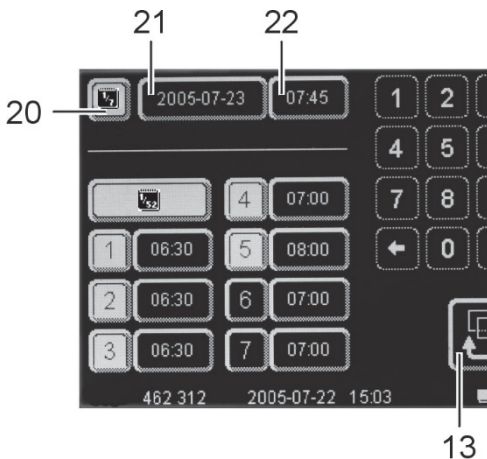
- Access the PIN menu:   PIN 1575 
- Touch the  button.

## Weekly programme



- Touch button (17).
  - ⇒ The buttons for the days of the week (18) can be activated.
- Touch one of the buttons 1 – 7 corresponding to the day of the week that you want to program. (1 = Monday, 2 = Tuesday, etc.)
  - ⇒ The pressed button becomes active (white background).
- Touch the button for the time (19).
- Use the numeric keypad to enter the time when the automatic start-up should start.
- Enter the times for the remaining days.
  - ⇒ The selected buttons (18) become active (white background).

## Special day



- Touch button (20).
  - ⇒ The buttons for the date (21) and the time (22) can be activated.
  - ⇒ The day after the current day is suggested automatically.

Use the numeric keypad to enter the date and time when the automatic start-up should start.

**INFO:** The programmed date takes precedence over the weekly programme.

In this example, automatic start-up has been programmed for 5 days of the week

- Monday, Tuesday, Wednesday: Start at 06:30 h
- Thursday: Start at 07:00 h
- Friday: Start at 08:00 h
- Saturday, Sunday: No automatic start-up
- As a deviation from the weekly programme, the machine will start operating at 07:45 h on a certain date (2005-07-23).



**INFO:** The date and time of the next automatic start-up are displayed when the machine is switched on. However, the machine can also be started up from this moment on.

## 13.5 General settings

### 13.5.1 Date, time, °Celsius / °Fahrenheit

**INFO:** The time must be changed in response to the summertime / wintertime time changes.

#### Here, you can:

- Enter the current date.
- Enter the current time.
- Change the time format.
- Change the unit of measurement for the temperature display.

#### How to call up the settings:

- Access the PIN menu:   PIN 1575 

- Touch the  button.

- Touch the  button.

- Setting the date:**

  - Touch button (23).
  - Enter the current date using the numeric keypad. Format: YYYY-MM-DD (year-month-day). The system checks to make sure you have entered a valid date. Your entry will not be accepted if it is implausible.

**Enter the time format:**

  - Select whether the time should be displayed in 24-hour or AM/PM mode.
  - Touch the “24h” or “AM/PM” button.

**Setting the time:**

  - Touch button (24).
  - Enter the current time using the numeric keypad.

**Defining the unit of measurement for temperature:**

  - Touch the “°C” or “°F” button depending on which unit of measurement you want to use for displaying temperatures.






- Touch the back button (13) to exit this area.

### 13.5.2 Setting the contrast

#### Here, you can:

- Change the contrast to adapt the screen display to the lighting conditions in your kitchen.

#### How to call up the settings:






- Access the PIN menu:   PIN 1575 
- Touch the  button.
- Touch the  button.
- Use the ◀ or ▶ button to change the setting until you can see all the data clearly on the screen.
- Confirm with the ✓ button.
- Touch the back button (13) to exit this area.

### 13.5.3 Setting the language

#### Here, you can:

- Set the language used for displaying texts on the screen.

#### How to call up the settings:

- Access the PIN menu:   PIN 1575 
- Touch the  button.
- Touch the  button.
- Select the required language.
- Touch the back button (13) to exit this area.



## 14 GSM module (option)

Together with your Winterhalter service technician, you can define which fault messages should be forwarded via text message or e-mail using the GSM module.

This involves the Winterhalter service technician making the following settings (P9928):

- Data transfer via text message, or
- data transfer via e-mail, or
- data transfer via text message and e-mail

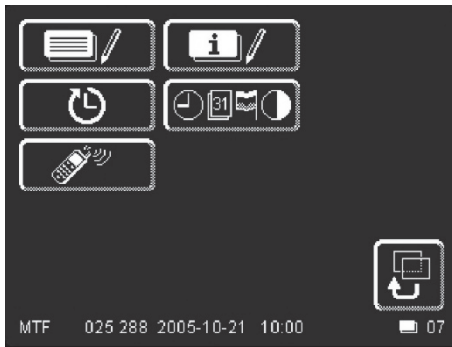
Examples:

- An empty detergent or rinse aid drum causes a fault message to be generated, and the message is automatically forwarded to your company technician.
- As soon as the next service is due, your company technician receives a message and can contact the Winterhalter service technician.
- ...

This system offers you the security of knowing that faults with a critical effect on hygiene can be quickly detected and rectified.




### How to define the mobile phone number for data transfer via text message:

- Access the PIN menu:   PIN 1575 



⇒ Screen 07 appears.

Screen 07

- Touch the  button.
- Touch the  button.
- Touch the  button.
- Enter a mobile phone number using the numeric keypad.

#### Format:

- International dialling code, omitting the “00” e.g. 44 for UK
- Network prefix, omitting the “0” e.g. 170
- Phone number of the mobile phone e.g. 787700

⇒ Result: 44170787700

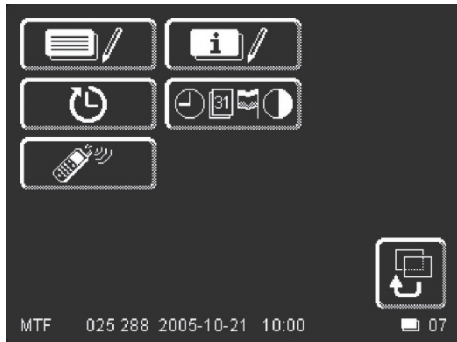
- Confirm with the ✓ button.
- Touch the back button (13) to exit the menu.
  - ⇒ The entered mobile phone number appears in full on the screen.

### How to define the e-mail address for data transfer via e-mail:

- Access the PIN menu:



PIN 1575



Screen 07

⇒ Screen 07 appears.

- Touch the  button.

- Touch the  button.

- Touch the  button.

- Enter an e-mail address using the keypad.

#### Format:

- Shortcode number of your network operator e.g. 80239 for Orange  
80239 for Vodafone  
80239 for T-Mobile  
80239 for O2
- A colon :
- E-mail address e.g. firstname.lastname@winterhalter.co.uk  
(max. 50 characters)

⇒ Result: 80239:firstname.lastname@winterhalter.co.uk

- Confirm with the ✓ button.
- Touch the back button (13) to exit the menu.
  - ⇒ The entered e-mail address appears on the screen.

The following data is transferred in the text message or e-mail

- Machine number
- Error code
- Date / time
- GSM phone number of the machine
- Commissioning date
- Total operating hours

## 15 HighTemp mode (OPTION)

For customers who have to meet strict requirements for temperatures in the warewasher. High temperatures can be proven with special temperature measuring strips on the dishes.

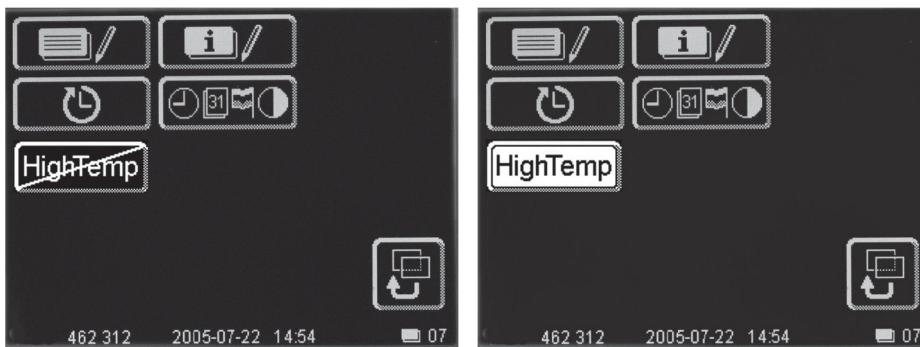
### The most important features


- increased heating output (main wash zones, boiler, rinse zone)
- increased total connected load
- increased temperatures (wash / rinse / drying zone)
- No lowered temperatures in the glasswashing programme
- Partition plates to restrict air circulation in the machine
- The medium transport speed is preset; other transport speeds can only be set if transport has begun with the medium speed


### How is the HighTemp mode enabled / disabled?

➤ Go into the PIN Menu:   PIN 1575 


⇒ One of the following two displays appears, depending on which mode you are currently in:



 HighTemp mode is disabled.

 HighTemp mode is enabled.

⇒ Tap the HighTemp button to enable or disable HighTemp mode.

⇒ Tap the button  and then switch the machine on again.

### What kind of effect does disabling have on HighTemp mode?

- Lowers temperatures to standard values
- all 3 transport speeds are available immediately
- “HighTemp OFF” event entry in the hygiene logbook and in the info menu after switching on the machine
- Rinsing is carried out with lowered temperatures in the glasswashing programme

## 16 Data transfer to PC (option)

The hygiene logbook can only hold a limited number of entries. Therefore, it is also possible to transfer the entries to a PC and archive them there.

Refer to the corresponding documents for further information.

## 17 Disposal



Incorrect or negligent disposal can cause considerable environmental pollution and/or damage.

- For hazardous substances, please observe the disposal regulations listed in the safety data sheets.
- Disposal according to national regulations.

## 18 Technical data

### 18.1 Technical data

#### Factory settings for temperature


Area	Temperatures acc. to DIN 10510		Factory setting
	Detergent without disinfectant component	Cleaner with a sufficient proportion of a disinfectant component	
Pre-wash zone	40 to 50 °C	40 to 50 °C	45 °C
Main wash zone	60 to 65 °C	55 to 65 °C	62 °C
Pump rinsing	60 to 70 °C	60 to 70 °C	67 °C
Fresh water rinsing	80 to 85 °C	80 to 85 °C	Boiler 1: 70 °C Boiler 2: 82 °C

#### Factory settings for hygiene logbook

Event	Screen display	Stored in hygiene logbook
Rinse aid container empty	Yes	Yes
Detergent container empty	Yes	Yes
Detergent under dosage	Yes	Yes
Service interval expired	Yes	Yes
Temperature zone 1 – 6 below requirement	Yes, in Info menu	Yes
Boiler 1 temperature violation (too high or too low)	Yes, in Info menu	Yes
Boiler 2 temperature violation (too high or too low)	Yes, in Info menu	Yes

Other events are possible on request

### Screen factory settings

Event	Possible selections	Factory setting
Time during which screen 01 (► page 7) is displayed	0 – 31 seconds	10 seconds
Screen saver	Yes/no	Yes
Screen saver appears after	0 – 63 minutes	5 minutes
Screen goes dark	Yes/no	Yes
Screen goes dark after	0 – 63 minutes	15 minutes
Maintenance interval (calculated in operating hours): Remaining time is displayed in PIN menu (► 13.3)	0 – 8191 hours	4095 hours
 Display of how many hours until next maintenance is required (► 8.3)	0 – 127 hours	50 hours
Acoustic signal when buttons touched	Yes/no	Yes
Machine is ready before rated temperatures have been reached	Yes/no	Yes

### Operating conditions

Operating temperature	0 – 40 °C
Relative air humidity	< 95 %
Storage temperature	> -25 °C
Maximum height above sea level of installation site	3000 m

#### For heat pump machine models:

- Fluorinated greenhouse gases contained in a hermetically sealed device.
- refrigerant R134a:
  - Climate: 1.20 kg; 1.72 tonnes of CO<sub>2</sub> equivalent
  - Climate+: 2.60 kg; 3.72 tonnes of CO<sub>2</sub> equivalent
  - ClimatePlus: 2.19 kg; 3.1 tonnes of CO<sub>2</sub> equivalent
- greenhouse gas potential 1430

## 18.2 Emissions

### Noise

The emission sound pressure level at the work station  $L_{pAeq}$  acc. to DIN EN ISO 11204 is < 70 dB(A)

### Exhaust air

400-500 m <sup>3</sup> /h	Machines without heat pump
400-500 m <sup>3</sup> /h	Machines with heat pump Climate
550-650 m <sup>3</sup> /h	Machines with heat pump Climate+
750-900 m <sup>3</sup> /h	Machines with heat pump ClimatePlus

The air admission and evacuation system must be configured acc. to VDI Directive 2052.

### 19 Connecting external dosing equipment (detergent, rinse aid)

The machine must be equipped with external dosing equipment for the purpose of dosing detergent and rinse aid.



**Danger**

**DANGER! Risk of fatal injury due to live components!**

**Have the dosing equipment installed and commissioned by a service technician authorised by Winterhalter.**

**Disconnect the machine from the mains and check for the absence of voltage before starting any electrical work on the machine.**

The Winterhalter service technician is obliged to:

- Install the dosing equipment according to the documents supplied with the equipment.

#### 19.1 Installing the conductivity electrode

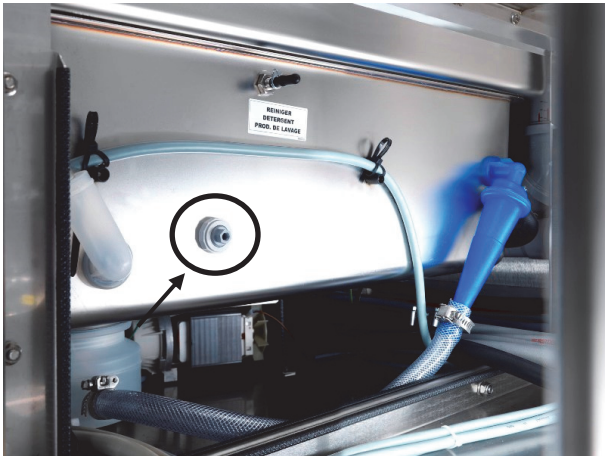


Fig.: First main wash zone with dummy plug for conductivity electrode

- Remove the front cover from the first main wash zone and the rinse zone.
- Remove the dummy plug (see arrow) and install the conductivity electrode supplied with the dosing equipment.

Make a new hole if the hole diameter does not match.

- Line the interior of the tank with cloths or paper to catch the drilling swarf.
- After drilling, remove all drilling swarf from the washing tank, otherwise rust could form.
- Pass the main power cable through the side cover to the dosing equipment using a suitable cable gland.

#### 19.2 Installing the dosing tube (detergent)



Fig.: First main wash zone with dosing nipple for detergent

- Remove the protective cap (see arrow) and secure the dosing tube with a cable tie.
- Route the dosing tube to the side cover taking a short route and avoiding kinks. The hose must not contact any hot surfaces or sharp edges.
- Pass the dosing tube through the side cover to the dosing equipment using a suitable cable gland.

### 19.3 Installing the dosing tube (rinse aid)



Fig.: Last main wash zone with dosing nipple for rinse aid

- Remove the cap (see arrow) and secure the dosing tube with a cable tie.
- Install a non-return valve in the dosing tube close to the dosing point, because dosing takes place against counterpressure.
- Route the dosing tube to the side cover taking a short route and avoiding kinks. The hose must not contact any hot surfaces or sharp edges.
- Pass the dosing tube through the side cover to the dosing equipment using a suitable cable gland.

### 19.4 Electrical connection

- Connect the dosing equipment to the terminals as described in the corresponding equipment documents. Terminal strip X7 for the electrical connection of the dosing equipment is located in the plinth of the rinse zone. Refer to the machine circuit diagram for more information.

#### Terminal strip X7

Terminal	1	2	3	4	5	6	7	8	9	10	11	12
Text	Rinse	Fill	Wash	Gebinde Klar-spüler	Gebinde Klar-spüler	Gebinde Reiniger	Gebinde Reiniger	Signal HACCP	Signal HACCP	L1	N	PE
	Rinse	Fill	Wash	Rinse aid con-tainer	Rinse aid con-tainer	Deter-gent con-tainer	Deter-gent con-tainer	HACCP signal	HACCP signal	L1	N	PE

#### Liquid detergent:

Pre dosage and additional dosage: Terminal 2 / FILL: Continuous signal when filling the machine (after the dry running protection is reached) or when the circulating pumps are active. Parameter P9915 = 1 (factory setting).

#### Powder detergent:

Pre dosage and additional dosage: Terminal 3 / WASH: Continuous signal when the 1st circulating pump is active.

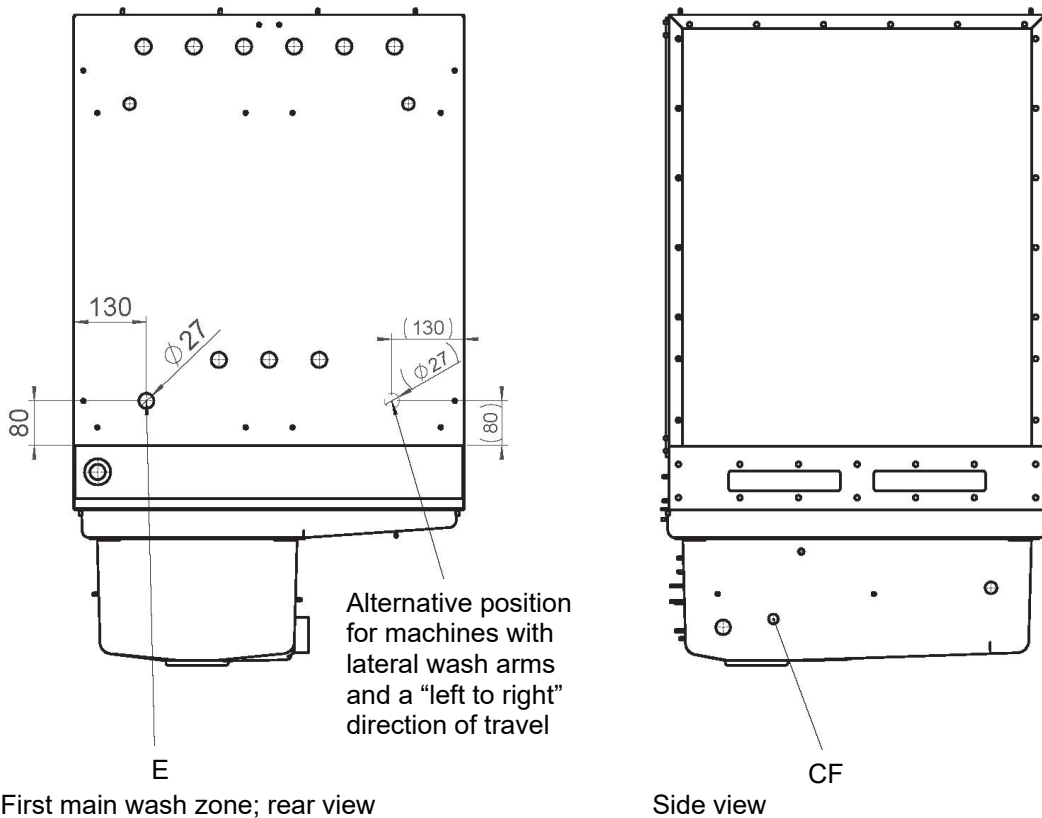
### 19.5 Commissioning the dosing equipment

Commission the dosing equipment as described in the corresponding equipment documents. First, however, the machine itself must have been commissioned.

## 20 Machines with automated powder dosing

If powder detergents have to be dosed (e.g. using the SoliDos powder dosing device), a hole must be drilled for the inflow point (E). For position, see drawing. The drilling diameter is dependent on the powder dosing device.

For the installation of a conductance measurement electrode, a hole (CF) is provided ex works. After the hole has been drilled, drilling swarf must be removed from the interior of the machine to prevent rust from forming.



If the injection hose is fed through a cover:

- Attach the edge protection.
- Seal the openings.
- Notify the customer that the warewasher's splash guard has been reduced.



## EG-Konformitätserklärung

EC declaration of conformity, ES prohlášení o shodě, Δήλωση συμμόρφωσης ΕΚ, Declaración CE de conformidad, Déclaration CE de conformité, Dichiarazione CE di conformità, EG-veklaring van overeenstemming, Deklaracja zgodności WE, Declaração CE de conformidade, ES-izjava o skladnosti, EG-försäkran om överensstämmelse, Декларацията за съответствие на ЕО, EF-överensstemmelseserklæringen, EÜ vastavusdeklaratsioon, EZ izjava o skladnosti, EK-megfelelőségi nyilatkozatnak, EB atitikties deklaracijoj, EK atbilstības deklarācija, Declarația de conformitate CE, ES vyhlášení o zhode

Wir, We, My, Εμείς η, Nosotros, Nous, Noi, Wij, My, Nós, Podjetje, Vi, Ние, Vi, Ettevõtte, Mi, Mi a, Mes, Mēs, --, My, Biz

**Hersteller / Manufacturer:** Winterhalter Gastronom GmbH  
Winterhalterstraße 2–12  
DE-88074 Meckenbeuren

DE **erklären in alleiniger Verantwortung, dass das Produkt „Gewerbliche elektrische Spülmaschine“**,  
EN declare under our sole responsibility that the product "Commercial electric dishwashing machines",  
CS prohláshujeme na vlastní zodpovědnost, že produkt „profesionální elektrická myčka“,  
EL δηλώνουμε αποκλειστικά με δική μας ευθύνη, ότι το προϊόν „Επαγγελματικό ηλεκτρικό πλυντήριο πιάτων“,  
ES declaramos bajo nuestra absoluta responsabilidad que el producto „lavavajillas eléctrico industrial“,  
FR déclarons sous notre seule responsabilité que le produit « Lave-vaisselle professionnelle électrique »,  
IT dichiariamo sotto la nostra piena responsabilità che il prodotto "Sistema di lavaggio elettronico industriale",  
NL verklaren als enig verantwoordelijke dat het product „professionele vaatwasmachine“,  
PL oświadczamy na własną odpowiedzialność, że produkt „elektryczna zmywarka przemysłowa“,  
PT declaramos sob nossa única responsabilidade, que o produto "Máquina de lavar loiça comercial eléctrica",  
SL na lastno odgovornostjo izjavlja, da je izdelek „Profesionalni električni pomivalni stroj“,  
SV förklarar som ensamt ansvariga, att produkten "Kommersiell elektrisk diskmaskin",  
BG декларираме на наша отговорност, че продуктът „Професионална електрическа миална машина“,  
DA erklærer under almindeligt ansvar, at produktet »erhvervsmæssig elektrisk opraskemaskine«,  
ET kinnitab oma ainuvastutusel, et toostuslik elektriline nõudepesumasin,  
HR izjavljujemo pod svojom isključivom odgovornošću da proizvod „Profesionalne električne perilice“,  
HU felelősségünk teljes tudatában kijelentjük, hogy a termék „Professzionális elektromos mosogatógép“,  
LT prisiimdamai visą atsakomybę deklaruojame, kad gaminys „Pramoninė elektrinė plovimo mašina“,  
LV uzņemties pilnu atbildību, paziņojam, ka izstrādājums «Profesionālā elektriskā trauku mazgājamā mašīna»,  
RO Declarăm pe propria răspundere că produsul „Mașină de spălat electrică de uz comercial“,  
SK vyhlasujeme vo výhradnej zodpovednosti, že výrobok „Profesionálna elektrická umývačka riadu“,  
TR olarık yegane sorumlugumuz dahilinde beyan ederiz ki Sanayi bulasik Makinesi,

**Typenbezeichnung / Model: MTR, MTF**  
**Warenzeichen / Trademark: Winterhalter**

DE **auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt:**  
EN to which this declaration relates is in conformity with the following standards:  
CS na kterou se vztahuje toto prohlášení, odpovídá níže uvedeným normám:  
EL στο οποίο αναφέρεται αυτή η δήλωση, συμφωνεί με τα ακόλουθα πρότυπα:  
ES al que se refiere esta declaración, cumple las siguientes normas :  
FR auquel se réfère cette déclaration est conforme aux normes :  
IT al quale fa riferimento la presente dichiarazione, è conforme alle seguenti norme :  
NL waarop deze verklaring betrekking heeft, met de volgende normen in overeenstemming is:  
PL do którego odnosi się to oświadczenie, jest zgodny z następującymi normami:  
PT ao qual esta declaração diz respeito, está em conformidade com as seguintes normas:  
SL na katero se nanaša ta izjava, skladen z naslednjimi standardi:  
SV som denna försäkran gäller, överensstämmer med följande standarder:  
BG за който се отнася тази декларация, отговаря на следните стандарти:  
DA som denne erklæring beror på, er i overensstemmelse med de følgende standarder:  
ET mille kohta see deklaratsioon on välja antud, on vastavuses järgmiste normidega:  
HR na koji se odnosi ova izjava, udovoljava sljedećim normama:  
HU amihez kapcsolódóan ezen nyilatkozat megfelel a következő szabványoknak:  
LT kuriam taikoma ši deklaracija, atitinka toliau išvardytus standartus:  
LV uz kuru attiecas šī deklarācija, atbilst šādiem standartiem:  
RO la care se referă această declarație, corespunde cu următoarele standarde:  
SK na ktorý sa vztahuje toto vyhlásenie, vyhovuje nasledujúcim normám:  
TR aşadaki standartlara uygundur:

**EN 50416:05** **EN 61000-6-2:05**  
**EN 60335-1:12 + A11:14/AC:14** **EN 61000-6-4:07 + A1:11**

DE **gemäß den Bestimmungen folgender Richtlinien:** IT ai sensi alle disposizioni previste dalle seguenti direttive :  
EN following the provisions of Directives: NL volgens de bepalingen van de volgende richtlijnen:  
CS na základě ustanovení následujících směrnic: PL zgodnie z postanowieniami następujących dyrektyw:  
EL σύμφωνα με τους κανονισμούς των ακόλουθων Οδηγιών: PT de acordo com as disposições das seguintes directivas:  
ES conforme a las disposiciones de las siguientes directivas: SL in je skladen z določili naslednjih direktiv :  
FR selon les conditions des directives suivantes : SV enligt bestämmelserna i följande direktiv:  
BG съгласно разпоредбите на следните директиви: LT pagamintas vadovaujantis toliau išvardytų direktyvų nuostatomis:  
DA iht. bestemmelserne fra følgende direktiver: LV atbilstoši šādu direktīvu noteikumiem:  
ET kooskõlas järgmiste direktiivide sätetega: RO conform dispozițiilor următoarelor directive:  
HR u skladu s odredbama sljedećih direktiva: SK v súlade s ustanoveniami nasledujúcich smerníc:  
HU a következő Irányelvek rendelkezéseinek: TR aşadaki Direktif hükümlerine uygundur:

**2006/42/EC (Machinery Directive)**  
**2014/30/EU (Electromagnetic Compatibility Directive)**  
**2011/65/EU (Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment)**

DE **Hinsichtlich der elektrischen Gefahren wurden gemäß Anhang I Nr. 1.5.1 der Maschinenrichtlinie 2006/42/EC die Schutzziele der Niederspannungsrichtlinie 2014/35/EC eingehalten.**

EN With respect to potential electrical hazards as stated in appendix I No. 1.5.1 of the machine guide lines 2006/42/EC all safety protection goals are met according to the low voltage guide lines 2014/35/EC.

CS S ohledem na nebezpečí v souvislosti s elektrickým proudem byly dle Přílohy I, odst. 1.5.1 směrnice o strojních zařízeních 2006/42/ES dodrženy cíle ochrany směrnice o nízkonapětových zařízeních 2014/35/ES.

EL Όσον αφορά τους ηλεκτρολογικούς κινδύνους τηρήθηκαν οι απαιτήσεις προστασίας της οδηγίας περί χαμηλής τάσης 2014/35/EK, σύμφωνα με το παράρτημα Ι αριθ. 1.5.1 της οδηγίας 2006/42/EK σχετικά με τα μηχανήματα.

ES Con respecto al potencial peligro eléctrico como se indica en el apéndice I No. 1.5.1 del manual de la máquina 2006/42/EC, todos los medios de protección de seguridad se encuentran según la guía de bajo voltaje 2014/35/EC.

FR Conformément à l'annexe I N° 1.5.1 de la Directive "Machines" (2006/42/EC) les objectifs de sécurité relatifs au matériel électrique de la Directive "Basse Tension" 2014/35/EC ont été respectés.

IT Per quanto riguarda i pericoli elettrici, gli obiettivi di protezione della Direttiva Bassa Pressione 2014/35/CE sono stati rispettati conformemente all'Allegato I n° 1.5.1 della Direttiva Macchine 2006/42/CE.

NL Met betrekking tot de elektrische gevaren werden overeenkomstig bijlage I nr. 1.5.1 van de Machineryrichtlijn 2006/42/EG de veiligheidsdoelstellingen van de Laagspanningsrichtlijn 2014/35/EG nageleefd.

PL Ze względu na elektryczne zagrożenia, które są wylistowane w załączniku I nr 1.5.1 dyrektywy dotyczącej maszyn 2006/42/EC wszystkie cele związane z bezpieczeństwem zawarte są w dyrektywie 2014/35/EC.

PT Com relação aos perigos elétricos, foram cumpridos os objetivos de proteção da Diretiva de Baixa Tensão 2014/35/CE de acordo com o Anexo I, n.º 1.5.1 da Diretiva de Máquinas 2006/42/CE.

SL V zvezi z nevarnostmi električnega toka smo se skladno s točko 1.5.1 priloge 1 k direktivi Evropskega parlamenta o strojih 2006/42/ES držali ciljev zaščite po direktivi o nizki napetosti 2014/35/ES

SV När det gäller elektriska faror har enligt bilaga I nr 1.5.1 till maskindirektivet 2006/42/EG skyddsmålen i lågspänningsdirektivet 2014/35/EU iakttagits.

BG По отношение на електрическите опасности съгласно Приложение I, точка 1.5.1 от Директивата за машините 2006/42/EO са изпълнени целите за защита съгласно Директивата за ниско напрежение 2014/35/EO.

DA For de elektriske farer, blev beskyttelsesmålene hos Lavspændingsdirektivet 2014/35/EC overholdt iht. bilag I nr. 1.5.1 i Maskindirektivet 2006/42/EC.

ET Elektriiktude vältimiseks on järgitud masinadirektiivi 2006/42/EÜ lisa I punkti 1.5.1 alusel madalpingedirektiivi 2014/35/EÜ ohutuseesmärke.

HR U vezi s električnim opasnostima, u skladu s Dodatkom I. br. 1.5.1. Direktive o strojevima 2006/42/EZ, poštovani su sigurnosni ciljevi Direktive o niskom naponu 2014/35/EZ.

HU Az elektromos veszélyek tekintetében a kifizetésültségű berendezésekről szóló 2014/35/EK irányelv védelmi céljai a gépekről szóló 2006/42/EK irányelv I. mellékletének 1.5.1. pontja alapján lettek betartva.

LT Elektros keliami pavojai: įvykdyti Žemosios įtampos direktyvos 2014/35/EB saugos tikslai pagal Mašinų direktyvos 2006/42/EB I priedo 1.5.1 punktą.

LV Attiecībā uz elektriskajiem riskiem atbilstoši Mašīnu direktīvas 2006/42/EK I pielikuma 1.5.1. punktam ir ievēroti Zemsprieguma direktīvas 2014/35/EK aizsardzības mērķi.

RO În privința pericolilor electrice, în conformitate cu Anexa I punctul 1.5.1 a Directivei privind echipamentele tehnice 2006/42/CE, au fost respectate obiectivele de protecție ale Directivei privind echipamentele electrice de joasă tensiune 2014/35/CE.

SK Pokiaľ ide o elektrické nebezpečenstvo, ciele ochrany Smernice o nízkom napätí 2014/35/ES boli dodržané v súlade s Prílohou I č. 1.5.1 Smernice o strojových zariadeniach 2006/42/ES.

TR Elektrik nedenli tehlikeler bakımından 2006/42/AT sayılı Makine Yönetmeliği Ek I no. 1.5.1 uyarınca, 2014/35/AT sayılı Alçak Gerilim Yönetmeliği'nin kurama hedeflerine uyulmuştur.

**DE Name und Anschrift der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:**

EN Name and address of the person authorised to compile the technical file:

CS Jméno a podpis osoby, která je pověřena sestavením technické dokumentace:

EL Όνομα και διεύθυνση του ατόμου, το οποίο είναι εξουσιοδοτημένο να συντάσσει τεχνικούς φακέλους:

ES Nombre y dirección de la persona facultada para elaborar el expediente técnico:

FR Nom et adresse de la personne autorisée à constituer le dossier technique :

IT Nome e indirizzo della persona responsabile della compilazione della documentazione tecnica:

NL Naam en adres van de persoon die gemachtigd is om de technische documenten samen te stellen:

PL Nazwisko i adres osoby odpowiedzialnej za przygotowanie dokumentacji technicznej:

PT Nome e endereço da pessoa responsável pela compilação da documentação técnica:

SL Naziv in naslov osebe, ki je pooblaščen za pripravo tehnične dokumentacije:

SV Namn på och adress till den person som är behörig att ställa samman den tekniska dokumentationen:

BG Име и адрес на лицето, упълномощено да състави техническата документация:

DA Navn og adresse på personen, som er bemyndiget til at sammensætte de tekniske dokumenter:

ET Tehnilise dokumentatsiooni koostamiseks volitatud isiku nimi ja aadress:

HR Ime i adresa osobe koja je ovlaštena za izradu tehničke dokumentacije:

HU A műszaki dokumentáció összeállítására felhatalmazott személy neve és címe:

LT Asmens, įgalioto parengti techninę dokumentaciją, vardas ir pavardė:

LV Personas, kura ir pilnvarota sastādīt tehnisko dokumentāciju, vārds un adrese:

RO Numele și adresa persoanei împuternicite să întocmească documentația tehnică:

SK Meno a adresa osoby oprávnenej na zostavenie technickej dokumentácie:

TR Teknik dokümanları derlemekle yetkili kişinin adı ve adresi:

**Bernhard Graeff**  
**Winterhalter Gastronom GmbH**  
**Winterhalterstraße 2–12**  
**DE-88074 Meckenbeuren**

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Bernhard Graeff  
 Technical Manager

Marco Bertiller  
 Director BU Products & Technology



**Winterhalter** Gastronom GmbH  
Gewerbliche Spülsysteme

Winterhalterstraße 2–12  
88074 Meckenbeuren  
Deutschland  
Telefon +49 (0) 75 42/4 02-0

[www.winterhalter.de](http://www.winterhalter.de)  
[info@winterhalter.de](mailto:info@winterhalter.de)

**Winterhalter** Gastronom GmbH  
Commercial Dishwashing Systems

Winterhalterstrasse 2–12  
88074 Meckenbeuren  
Germany  
Telephone +49 (0) 75 42/4 02-0

[www.winterhalter.biz](http://www.winterhalter.biz)  
[info@winterhalter.biz](mailto:info@winterhalter.biz)