

Installation instructions for connecting competitors' dosing units to Winterhalter UC-S, UC-M, UC-L and UC-XL dishwashing machines

1. General notes

These instructions outline the optimum installation points on the machine and the procedure for external connection of a competitor's dosing unit.

Competitors' dosing units are any units that were not produced by Winterhalter Gastronom GmbH.

Installing competitors' dosing units inside or on trim panels of Winterhalter dishwashing machines is not permitted and we provide no support for this, see Exclusions of liability.

The use of conductivity-controlled dosing units is not appropriate for dishwashing machines with integrated water softeners, as regeneration salt can enter the tank and cause errors in the measured values.

Dosing nipples for detergent and rinse aid dosing are already fitted in the machines.

All dosing nipples are designed for tubes with an internal diameter of 5mm.

Dosing tubes must be secured on the dosing nipples with appropriate fixings to prevent unintended detaching.

Dosing tubes and cables should be routed and securely attached inside the machine in such a way that they do not come into direct or indirect contact with or run close to hot components (boiler, tank, heating elements).

Pay special attention to ensuring that dosing tubes and electrical cables are not kinked.

Openings through trim panels etc. must generally be designed in such a way as to ensure that the IP protection rating specified on the machine's rating plate is maintained.

2. Safety notes

A competitor's dosing unit must be connected to Winterhalter dishwashing machines by approved specialist personnel in line with the relevant national regulations.

During all work on the machine, the on-site mains power switch must be turned off and secured against being switched back on unintentionally.

Caution: the machine can only be considered de-energised when all poles of the on-site mains power switch have been disconnected.

Competitors' dosing units must be incorporated into the machine's protective circuit (PE).

3. Mechanical connection



Danger

DANGER! Risk of fatal injury due to live components.

Disconnect the machine from the mains and check that machine is de-energised.

- Turn off the on-site **mains power switch** and secure it against being switched back on unintentionally.
- Remove the front panel from the machine's base frame. Remove the separation wall for the electrical installation space (Figures 1-3)
- If there is a Winterhalter dosing unit fitted, remove it and isolate the electrical connections.
- Install the competitor's dosing unit. Any fixtures, mounting equipment etc. must be **provided by the customer**.
- Dosing nipples in the Winterhalter machine are clearly indicated and identified later in these instructions.
- On the rear of the machine's base frame, there are places for routing tubes from the external competitor's dosing unit to the machine's dosing nipple, together with the electrical control cables for the competitor's dosing unit (Figure 4).



Figure 1



Figure 2



Figure 3



Figure 4

For conductivity-controlled competitors' dosing units, the following also applies:

The use of conductivity-controlled competitors' dosing units is not appropriate for dishwashing machines with integrated water softeners, as regeneration salt can enter the tank and cause errors in measured values.

- Open the door and remove the strainer with filter cylinder.
- Remove the left side panel.
- A hole must be drilled in the tank to install the conductivity electrode. First ensure accessibility for installation and place rags or suitable paper in the inside of the tank to catch the drilling chips. **The optimum position for the conductivity electrode is shown below and is marked with "C".**
- The size of the drilled hole depends on the conductivity electrode. The hole must be carefully deburred before installing the electrode.
Caution: carefully remove drilling chips from the inside area (use vacuum cleaner if necessary), as these can cause rust to form in the machine's tank and may also block up the jet systems.
- Install the competitor's dosing unit. Any fixtures, mounting equipment etc. must be **provided by the customer**.

Powder dosing

For the UC-S, UC-M, UC-L, UC-XL front loading dishwashing machines, there is no suitable point for a dosing opening for powder dosing. Powder dosing units are therefore not permitted on these machine types.

4. Position of the dosing points

4.1 UC-S

4.1.1 Water volumes

Values depend on the dishwashing machine type

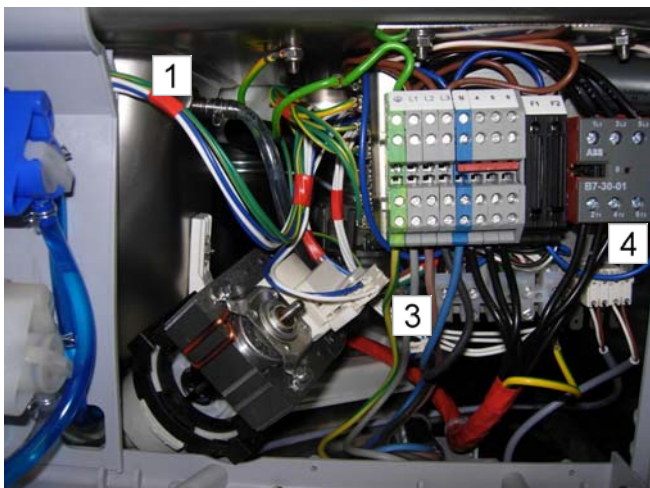
	Glass	Dishes	Bistro	Cutlery	ReTemp	Cool ¹
Rinse water consumption (litres / rack) ^{1, 2}	x ³	2.4	2.4	3.4	x ³	3.4
Tank capacity (litres)	9.5	9.5	9.5	9.5	9.5	9.5

¹ Under ideal conditions. The rinse water consumption is dependent on the conditions in the building. Fine adjustments are made during commissioning.

² Factory setting

³ Program 1: 3.0 litres / rack; other programs: 2.4 litres / rack

4.1.2 Dosing point for detergent



View from front

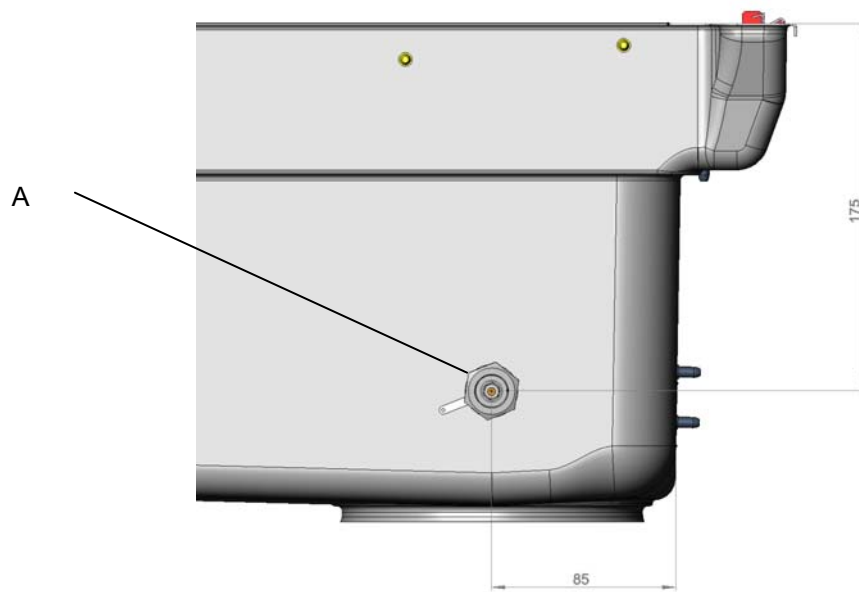
4.1.3 Dosing point for rinse aid



View from rear

- 1 Dosing point for detergent
- 2 Dosing point for rinse aid
- 3 Transfer strip for external dosing unit
- 4 Connection for empty indicator (left for detergent / right for rinse aid)

4.1.4 Position of conductivity measuring electrode (C)



View from left

4.2 UC-M, UC-L, UC-XL

4.2.1 Water volumes

Values depend on the dishwashing machine type

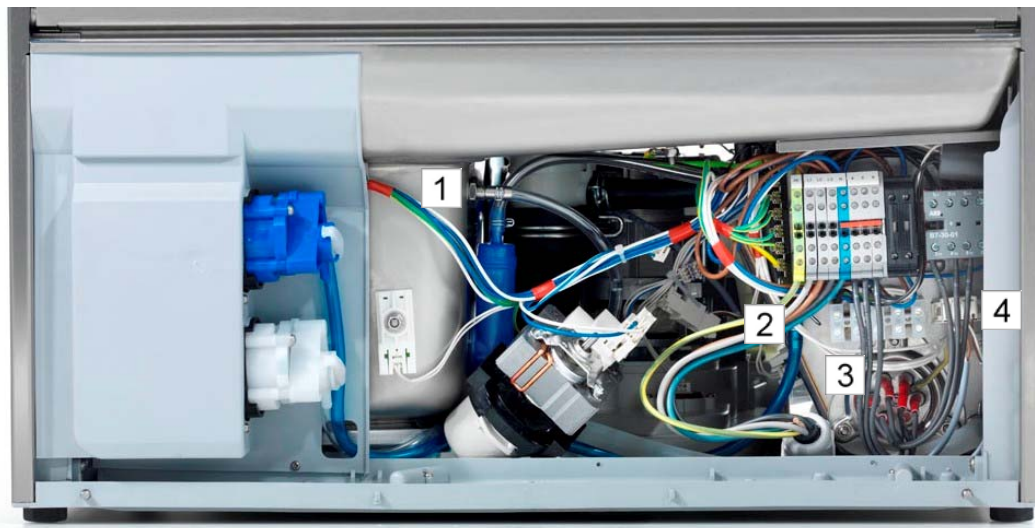
	Glass	Dishes	Bistro	Cutlery	ReTemp	Cool ¹
Rinse water consumption (litres / rack) ^{1, 2}	x ³	2.4	2.4	3,4	x ³	3.4
Tank capacity (litres)	15.3	15.3	15.3	15.3	15.3	15.3

¹ Under ideal conditions. The rinse water consumption is dependent on the conditions in the building. Fine adjustments are made during commissioning.

² Factory setting

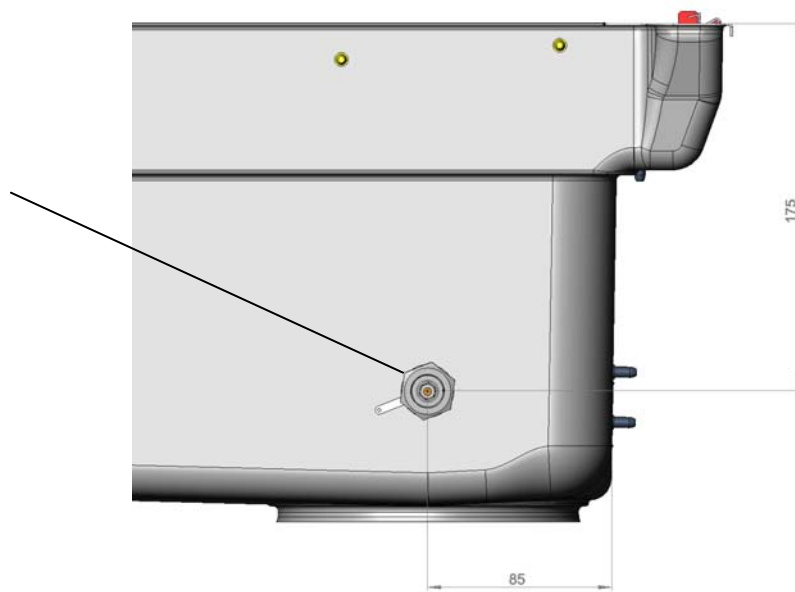
³ Program 1: 3.0 litres / rack; other programs: 2.4 litres / rack

4.2.2 Detergent / rinse aid dosing point



- 1 Dosing point for detergent
- 2 Dosing point for rinse aid
- 3 Transfer strip for external dosing unit
- 4 Connection for empty indicator (left for detergent / right for rinse aid)

4.2.3 Position of conductivity measuring electrode (C)

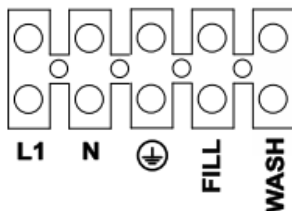


View from left

5. Electrical connection

5.1 General information

- In the separating wall to the electrical installation space, you will find a drawing of the transfer strip for the dosing equipment.



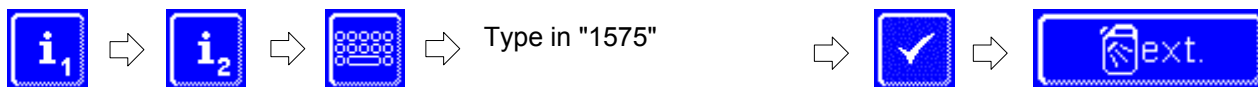
- The current draw on the transfer strip must not exceed 0.5 A. A higher current draw could trigger the upstream 4.0 A control-circuit fuse, as the sum of all connected actuators could otherwise exceed the permitted maximum continuous current.
- The transfer strip can be assigned various signals depending on how parameter P 704 is set.

Table 1: Transfer strip terminal assignment for UC-S, UC-M, UC-L, UC-XL

Terminal strip X3	Explanation
L1	When mains power switch is turned on, the control phase is applied here
N	When mains power switch is turned on, the neutral potential is applied here
PE	Protective earth (green-yellow)
WASH	Depending on the setting for parameter P704 (see table below)
FILL	

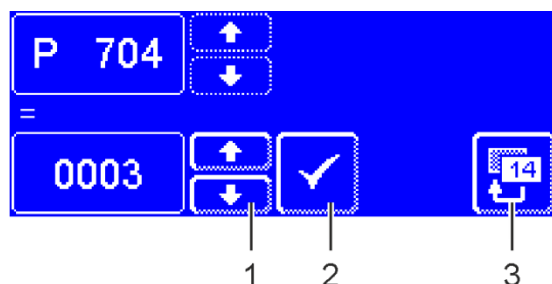
How to make parameter P 704 accessible:

- Tap the following buttons in turn:



INFO

Incorrectly entered digits can be corrected with the button.



- Using the scroll buttons (1), set the value of parameter P704.
- Press the button (2) to save your input.
- Press the back button (3) to exit from the menu.

Terminal	Voltage is on	Condition	Restriction	Setting
Fill	while the machine is filling	a), b)		P704 = 0
	parallel to solenoid valve – while the machine is filling – during rinsing	a)	c)	P704 = 1
	in parallel with the rinse pump during rinse cycle	a), b)	c), d), e)	P704 = 4

- a) door closed
- b) minimum water level in the tank
- c) not in the self-cleaning programme
- d) not while the machine is filling
- e) not in descaling or basic cleaning programme

6. Final work

- Once the machine and the competitor's dosing unit have been properly installed and started, run several washing programs. During these programs, check the machine, particularly for leaks on the newly installed components.
- Run the prescribed electrical safety tests.
- Turn off the machine and the on-site mains power switch.
- Cover the machine.