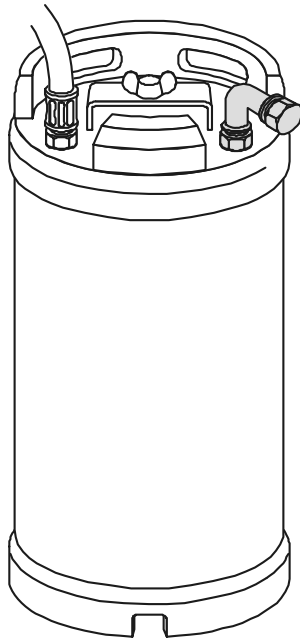


# Operating Instructions

for Winterhalter Gastronom partial and full demineralisation units  
TE 15/TE 20/VE 15/VE 20

Water treatment attachments for dishwashers



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## 1 Purpose

Winterhalter Gastronom partial demineralisation units (TE) and full demineralisation units (VE) are designed for treating hard water for use in dishwashers. They may only be used for this purpose and in accordance with the operating instructions provided.

The use of partially or fully demineralised water for the machine washing of glasses, cutlery and so on is in many cases essential in order to obtain optimal results.

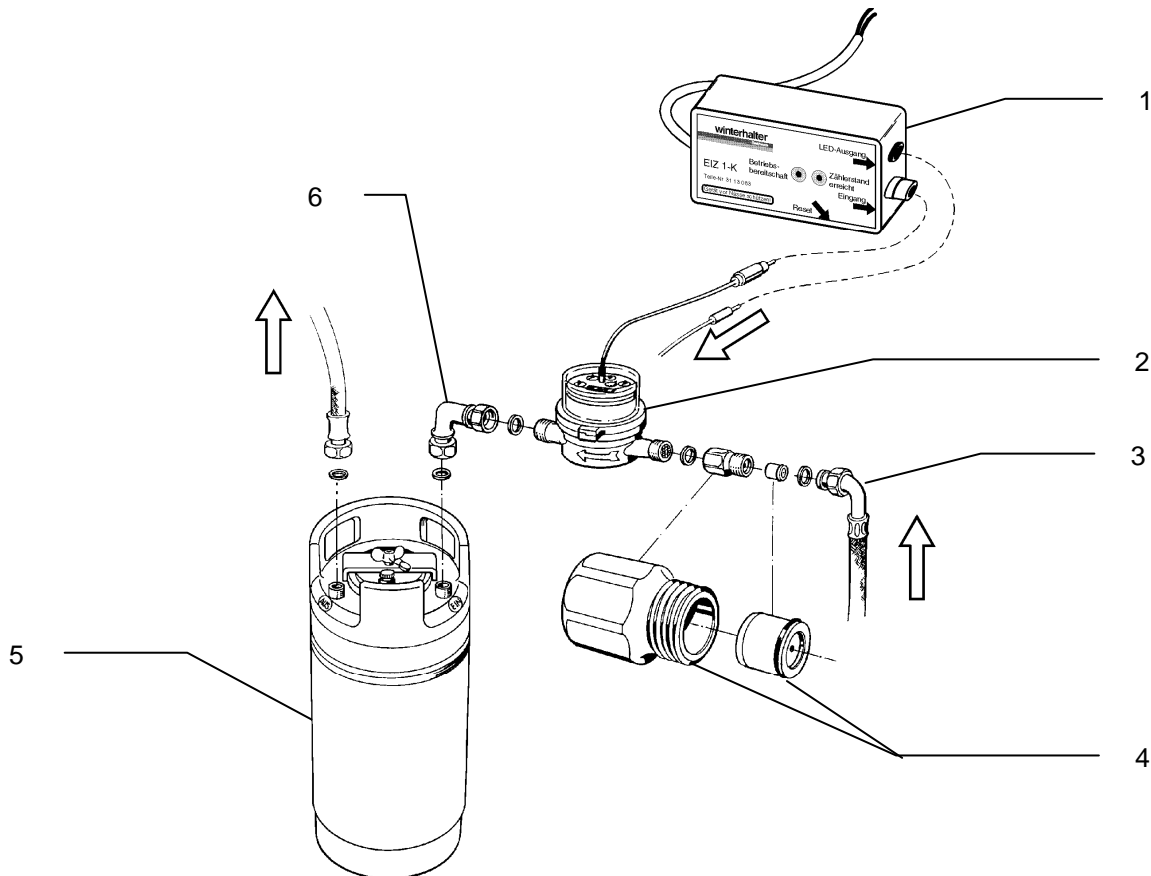
## 2 Installation site

- The partial and full demineralisation units TE 15 / TE 20 and VE 15 / VE 20 must be operated in the upright position, with easy access for replacement purposes.
- A water shut-off valve must be available on site.
- The unit must be protected against freezing.
- In order to use the optionally available pulse counter EIZ 1K, an electrical connection is necessary. This can be provided via a socket. If this is not possible, the power connection can also be made at the relevant dishwasher. However, you must make sure that the power supply to pulse counter EIZ 1K is never interrupted for longer than 3 days (back-up time), as otherwise the previously counted values will be erased.

### 3 Structure

The unit basically consists of the following components:

- 1 Pulse counter EIZ 1K (optional)
- 2 Water meter (optional)
- 3 Metal hose from on-site water supply to demineralisation unit
- 4 Backflow restrictor
- 5 Stainless steel cartridge
- 6 Elbow coupling



### 4 Connection

The demineralisation unit is connected between the on-site water supply and the dishwasher. Please note the instructions on the enclosed connection diagram.

Connect the unit according to the diagram as follows:

- Make the necessary hose connections.
- Install the water meter (optionally available) at the input side of the cartridge. This is not necessary in the case of machines with WPS from version 003 onwards if the count-down meter is used.
- Mount the backflow restrictor between the on-site water shut-off valve and the water meter.
- Mount the dirt trap enclosed with the dishwasher directly downstream of the water shut-off valve.
- Tighten all screw fittings firmly.


## 5 Safety information for the operator

The demineralisation unit may only be used by persons instructed in its workings and operation.

- Never open the leaded cover on top of the stainless steel cartridge.
- Only operate the demineralisation unit as described in these operating instructions.
- In case of faults in the water system, close the on-site water shut-off valve immediately.

## 6 Function

The water treatment process works on the ion exchange principle. The exchanger substance in the demineralisation unit reduces the salt content (hardness) of the water partially in the case of the TE 15/ TE 20 (partial demineralisation) or fully in the case of the VE 15/ VE 20 (full demineralisation). This eliminates or minimises the problem of residues from the water drying onto the washed items (glasses, cutlery, etc.).

The exchanger substance has a limited capacity which depends on the composition of the untreated water. When the capacity of the demineralisation unit is exhausted, the red LED on pulse counter EIZ 1K flashes or the display  on the dishwasher lights up. This tells you it is time to exchange the demineralisation unit.

### Option:


If the dishwasher is suitably equipped, it is possible to connect the LED "REG" (Regeneration) in the control panel of the dishwasher to pulse counter EIZ 1K via a cable (part no. 80000692). This LED will then light up red when the capacity of the demineralisation unit is exhausted.

## 7 Initial start-up

The initial start-up must be performed by a Winterhalter customer service engineer according to the "Start-up instructions for partial and full demineralisation units TE 15 / TE 20 / VE 15 / VE 20". Contact the Winterhalter works representative responsible for your area as soon as the demineralisation unit is correctly connected.

## 8 Operation

- Open the on-site water shut-off valve.
- Check to make sure the demineralisation unit is ready for operation:  
The green LED on pulse counter EIZ 1K should be illuminated. If not, and the red LED is flashing, this means the unit has exceeded its capacity and needs to be exchanged by the Winterhalter customer service engineer.

If you are not using pulse counter EIZ 1K, the display  on the dishwasher should not be illuminated.


Do not continue using the unit once its capacity is exhausted, otherwise trouble-free operation can no longer be guaranteed and deposits will accumulate on the washed items.

## 9 Shutdown (daily)

At the end of the working day, the demineralisation unit must be shut down as follows:

- Close the on-site water shut-off valve.

## 10 Troubleshooting

- Check the LEDs of pulse counter EIZ 1K or the display  on the dishwasher at least once a day.

### Green LED not illuminated – red LED flashing:

The value preset in pulse counter EIZ 1K has been reached; the capacity of the demineralisation unit is exhausted. Have it exchanged without delay by a Winterhalter customer service engineer.

### Neither LED is illuminated:

The power supply to pulse counter EIZ 1K has been interrupted for longer than 72 hours, or a defect has occurred in the unit. Contact a Winterhalter customer service engineer.

If the power supply is interrupted (e.g. mains failure), pulse counter EIZ 1K remains on standby for at least 72 hours (internal battery).

If the duration of the power failure or mains disconnection exceeds the battery back-up time, pulse counter EIZ 1K will start counting again from the set value, without taking into account the already consumed cartridge capacity. If you suddenly find deposits on the washed items or encounter any other faults, contact a Winterhalter customer service engineer.

### The display on the dishwasher is illuminated

This means the capacity of the demineralisation unit is exhausted. Have it exchanged without delay by a Winterhalter customer service engineer.

## 11 Care and maintenance

The correct operation of the demineralisation unit should be inspected at regular intervals (once a year is recommended) by a Winterhalter customer service engineer.

Only use suitable cleaning and preserving agents to care for the unit. We recommend Winterhalter stainless steel cleaner and Winterhalter stainless steel preservative.

## 12 Special notes

When operating the unit with hot water, make sure the water temperature does not exceed the maximum permissible value of 60°C.

Exchange the demineralisation unit at least once a year and after long idle periods (seasonal breaks).

## 13 Technical data

On-site flow pressure	min. 2 bar; max. 6 bar (if connected to machines with non pressure-dependent boilers)
	min. 3 bar; max. 6 bar (if connected to machines with pressurised boilers)
On-site flow rate	min. 5 l/min (if connected to machines with non pressure-dependent boilers)
	min 15 l/min (if connected to machines with pressurised boilers)
Pressure loss	approx. 1 bar
Maximum operating temperature	60°C