Operating Instructions

for Winterhalter Gastronom Water Softener DuoMatik II and DuoMatik 2x4

Contents

1 Intended purpose

The water softener **DuoMatik** is for treating tap water for use in a commercial dishwasher and may only be used for this purpose. It is installed between the water supply and the dishwasher.

Any modification in the design or use of the appliance without the prior written consent of Winterhalter Gastronom GmbH will release us from all warranty and product liability obligations.

Any damage to the **DuoMatik** due to non-compliance with the instructions in this manual will result in the loss of warranty claims with respect to Winterhalter Gastronom GmbH.

2 Safety instructions

- The maximum permissible water temperature is:
  DuoMatik II: 60°C
  DuoMatik 2x4: 50°C.
- The inside of the tank must not be cleaned with detergents or other chemicals.
- The **DuoMatik** must be protected against the risk of freezing.

3 Installation and connection

Installation

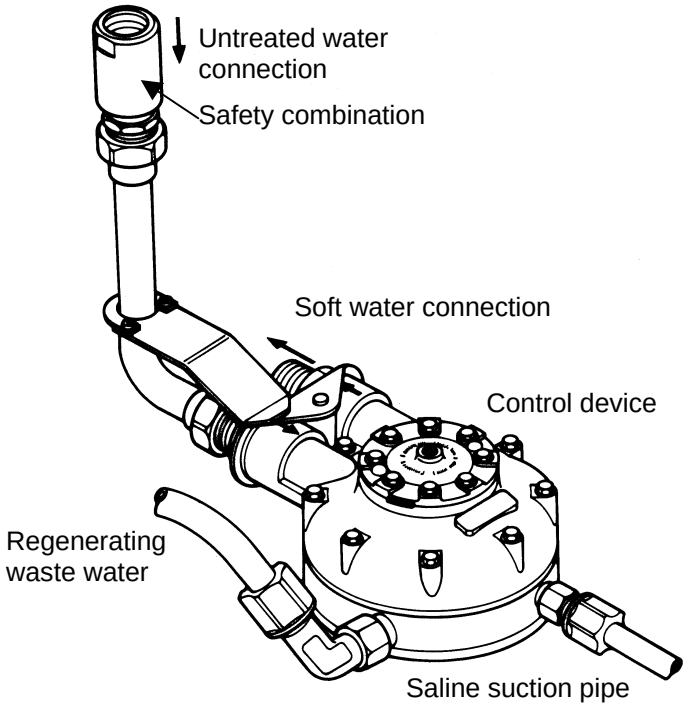
- Remove the **DuoMatik** from the box and check for any damage in transit. Any damage should be reported immediately to the carrier, insurance company and manufacturer.
- Remove the cardboard padding from the plastic container.
- The **DuoMatik** is best installed on the floor. If installing it on an existing foundation or base, unscrew the castors.
- The place of installation must be horizontal and even. A slight incline, as is usual in industrial kitchens, will not impair the function of the softener, but it should be secured to prevent it from rolling away.
- In the vicinity of the softener, there should be a soiled water drain which, after installation of the **DuoMatik**, should not be higher than the side overflow of the appliance.
- There must be room to remove the cover in order to top up the regenerating salt.

Connection according to DVGW (German gas and water supply industry association) and other guidelines

To ensure DVGW or DIN-compliant operation of the system, the safety kit (part no. 5101464) is required and must be ordered separately. The kit contains a safety combination HD to DIN EN 1717 (DIN 1988-4) with backflow restrictor and anti-vacuum device (type C). In Germany the safety kit is included.

The DuoMatik must be connected to the customer's supply and waste water pipes by certified fitters according to the national and local requirements.
It is essential that the information on the enclosed connection diagram be observed.

The water in the **DuoMatik** is softened to a total hardness of 0°d. Consequently, no water pipe made of copper or galvanised material should be used at the soft-water end.



- Connect the saline suction pipe and the regenerating waste water hose to the control device.
- Mount the water inlet and outlet connectors on the control device together with the safety combination.
  If space is limited, the safety combination can be fitted separately from the appliance at another point in the water inlet. Always make sure, however, that it is installed vertically in the flow direction, at a distance of at least 110 mm above the upper edge of the appliance.
- Install the microfilter supplied with the dishwasher in the water supply pipe to the **DuoMatik**.

Connection without backflow restrictor and anti-vacuum device

If the relevant national guidelines do not require a backflow restrictor or anti-vacuum device for connecting devices to the drinking water supply, the water inlet hose is connected directly to the valve head.

A microfilter (mesh size 150 μm) should be fitted downstream of the water shut-off valve. We recommend the microfilter supplied with our dishwashers.

4 Structure and function

The **DuoMatik** consists of a mobile plastic container with a detachable cover. The container is for storing regenerating salt or saline solution.
Inside the container are two connected cartridges made of glass-fibre-reinforced polyester and filled with exchanger resin.
One of the cartridges is equipped with a control device with an exchangeable hardness range disc.
Also installed in the plastic container is the saline suction pipe with an integrated float valve.

The water softening process works on the principle of ion exchange. The ion exchanger resin in the cartridges has the ability to absorb the hard water ions while releasing other, water-soluble ions into the water in exchange.

The exchanger resin has a limited capacity which depends on the hardness of the untreated water. When exhausted, it has to be regenerated.

To ensure constant availability of softened water, when one cartridge is exhausted, the **DuoMatik** automatically switches to the second cartridge and regenerates the first one.
The regeneration intervals are controlled by the hardness range disc, which must be chosen according to the hardness of the untreated water.

5 Initial start-up

After connecting the **DuoMatik** correctly to the on-site supply pipes, contact your responsible Winterhalter works representative for the initial start-up. He will also brief you on the operation of the **DuoMatik**.

6 Operation

After start-up, the softener operates fully automatically. All you need to do is top up the regenerating salt from time to time. Only use unadulterated boiled salt which is labelled suitable for use in water softeners (granulation approx. 15 mm, or in tablet form). Never use rock salt or refined salt.
Make sure the level of regenerating salt in the container is always above the water level.

7 Care and maintenance

The softener can be cleaned and maintained with commercially available plastic cleaning and preserving agents.

The operation of the softener should be checked at regular intervals (at least once a year) by a Winterhalter after-sales service engineer.

When necessary, the inside of the container should be cleaned as follows:

- Shut off the water supply
- Drain the container completely (empty the water and salt)
- Take out the strainers
- Remove sludge and dirt particles with a cloth or brush. Do not use detergents or other chemicals!
- Re-insert the strainers and open the water tap. Re-fill with salt.

Cleaning the microfilter:
The microfilter upstream of the appliance should also be cleaned at regular intervals. To do this, shut off the water supply before removing and cleaning the filter element.
Then re-insert the filter element in the correct position, tighten the screw cap firmly and re-open the water supply.