

Operating instructions for G 7781 DENTAL Thermal Disinfector

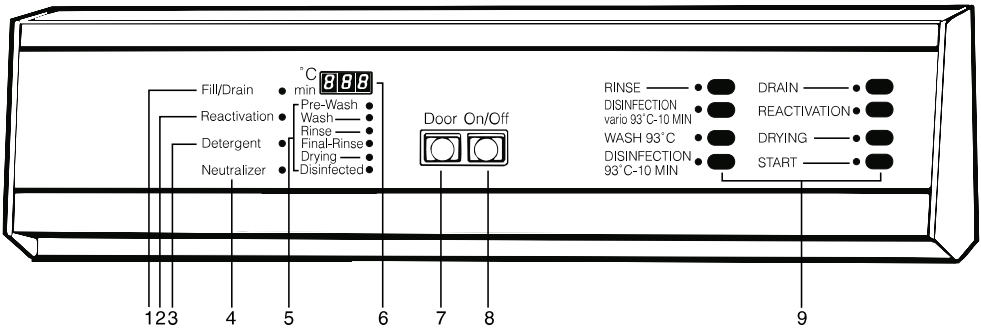
To prevent accidents and reduce the risk of damaging the machine, read these instructions **before** installing or using the machine.



M.-Nr. 04 701 092

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1 "Check water inlet/drain"
indicator light

2 "Reactivate water softener"
indicator light

3 "Add liquid detergent"
indicator light
(only where special DOS module is
connected externally)

4 "Add neutralizing agent"
indicator light

5 Program sequence indicator light

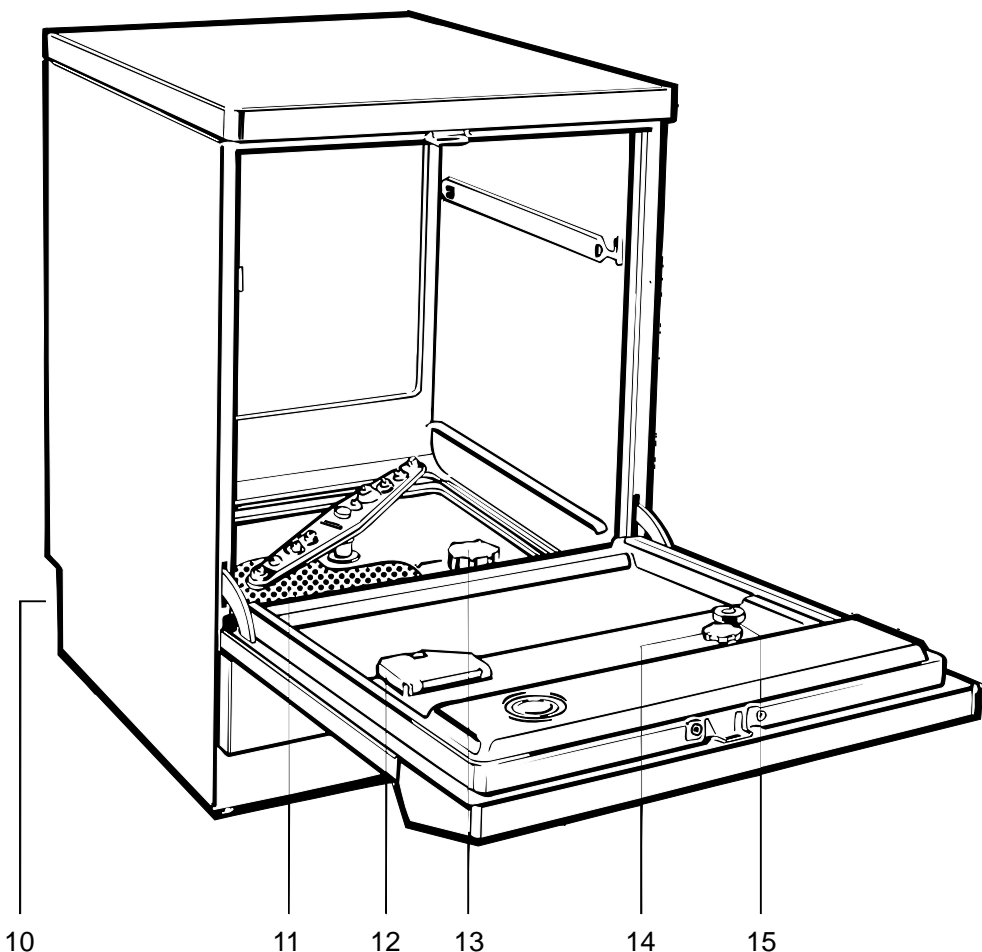
6 Indicator display field

7 Door release

8 On-Off button

9 Program selectors

Guide to the machine



10 Connection for dispenser pump
DOS C 60 (rear)

11 Filter combination

12 Dispenser for powder detergent

13 Salt reservoir (water softener)

14 Dispenser for liquid rinsing agent
with dosage selector

15 Rinsing agent level indicator

Disposal of the packaging material

The transport and protective packaging is mostly manufactured from the following reusable materials:

- corrugated paper/cardboard
- polystyrene (CFC-free)
- polyethylene foil (transparent)
- untreated wood

Rather than throwing these materials away, please take them to the nearest recyclables collection point.

Disposal of your old machine

Old machines contain materials which can be recycled. Please contact your local scrap merchant about potential recycling options before disposal.

When disposing of an old machine, make sure the door catch is removed. This will prevent children at play from being accidentally locked in.

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed including the following:

READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE

WARNING –

The manufacturer cannot accept responsibility for damage caused when the appliance is not used according to the instructions, or for uses other than those for which it was intended.

■ This special commercial machine is suitable for the applications mentioned in the operating instructions. Do not use for purposes other than those for which it was designed, as these may be dangerous. The manufacturer cannot be held responsible for damage caused by improper use.

■ Do not allow small children or unauthorized personnel access to the machine or its controls.

■ If thermal disinfection is required (93°C/200°F/10min.), the process needs to be checked and documented regularly. This can be done by checking the disinfection control diode on the machine. Alternatively, a chemical indicator may be used (e.g. the Disinfection Control Tubes by A. Browne Ltd., supplied by Miele). These disinfection control tubes should be placed in the filter combination. After the disinfection cycle, they may be inspected by removing the coarse filter.

■ The disinfection program should not be interrupted, as this would affect the disinfection result. If interruption is necessary, the program should be repeated.

■ Do not install the machine in areas where there is a risk of explosion.

IMPORTANT SAFETY INSTRUCTIONS

■ The machine is built in accordance with current safety requirements. Any repair work should only be carried out by a suitably qualified and competent engineer. Repairs by unqualified persons could be dangerous.

■ The electrical safety of this machine can only be guaranteed if connected to an electrical system that complies with all local and national regulations. It should be checked by an expert if necessary. The manufacturer cannot be held responsible for damage caused by incorrect wiring.

■ The machine should only be installed by a suitably qualified and competent contractor. Before connecting the machine, the installer should check that the voltage and frequency of the electrical supply correspond with the details on the data plate of the machine.

■ Only genuine Miele parts or accessories should be used with the G 7781 Dental Thermal Disinfector. The performance and safety of non-genuine parts or accessories cannot be guaranteed, and use of such parts or items may void the machine warranty. If you have specific questions about machine options or accessories, please call Miele.

■ The use of Neodisher cleaning, neutralizing, and rinsing agents is strongly recommended. The use of any other products may invalidate the disinfection results and the manufacturer's warranty.

■ The machine is completely isolated from the electricity supply only when it is unplugged or the circuit breaker is turned off. This must be done before any repair work is carried out.

■ The water in this machine must not be used as drinking water.

■ Only use detergents which have been approved of by Miele. Do not use solvents in your machine as there may be a danger of explosion.

IMPORTANT SAFETY INSTRUCTIONS

■ Take care when handling liquids such as detergents, rinsing or neutralizing agents. These may contain acids or alkalis. Follow the instructions and safety procedures on the packaging carefully and wear protective gloves and goggles. Read the Material Safety Data Sheets.

■ Avoid inhalation of powder cleaners.

■ Empty any containers or glassware before placing it in the machine. Do not allow any acids or solvents, especially hydrochloric acid and chlorides, to get into the wash cabinet.

■ Be careful when sorting instruments with sharp pointed ends. If possible, place the pointed end downwards.

■ Install special inserts in accordance with the instructions provided.

■ When using the machine be careful not to scald or burn yourself. Baskets and inserts must first be allowed to cool down. Any water which may have collected in incorrectly loaded items will be very hot and should be emptied into the wash cabinet.

■ Do not touch the heating elements after the end of a program. You could burn yourself.

■ Do not hose the machine down to clean it.

■ Do not sit or lean on the open door. This could cause the machine to tip and be damaged.

■ When disposing of an old machine, make sure the door catch is removed. This will prevent children at play from being accidentally locked in.

IMPORTANT SAFETY INSTRUCTIONS

■ All relevant safety procedures should be obeyed. Relevant safety procedures include, but are not limited to, the Centers for Disease Control's Recommended Infection Control Practices for Dentistry and the OSHA Blood-borne Pathogens Standard.

The manufacturer cannot be held responsible for damage caused by failure to heed the warning and safety instructions.

SAVE THESE INSTRUCTIONS

Indications for use

High-level disinfection

The G 7781 Dental Thermal Disinfector is suitable for automatic treatment of dental instruments and accessories. It cleans and when using the disinfection programs simultaneously thermally disinfects at 200°F/93°C instruments and accessories.

Areas of effectiveness are physical removal or thermal inactivation of vegetative bacteria including mycobacteria, fungi, fungal spores, and viruses. These categories include the *Mycobacterium tuberculosis* and the *Enterococcus faecium*.

Important: Only the programs labeled 'DISINFECTION' disinfect! Only use these programs when handling contaminated items. All other programs are designed to clean items **without** disinfecting them!

All relevant **safety procedures** should be obeyed. Relevant safety procedures include, but are not limited to, the Centers for Disease Control's Recommended Infection Control Practices for Dentistry and the OSHA Bloodborne Pathogens Standard.

The G 7781 Dental Thermal Disinfector achieves **high-level disinfection** as defined by the Spaulding categorization.

The Spaulding category high-level disinfection is the same type of means as in the sterilant category except that the use pattern is different. The sterilant is used as a high-level disinfectant by e.g. reducing the exposure time within its effective range of tuberculocidal, virucidal, and bactericidal action.

According to the **Centers for Disease Control's Recommended Infection Control Practices for Dentistry**, instruments should be classified in one of the following categories and be treated accordingly:

All **critical instruments** must be sterilized after treatment in the G 7781 Dental Thermal Disinfector. Critical instruments are used to penetrate soft tissue or bone, e.g. forceps, scalpels, bone chisels, scalers, or burs.

Semicritical instruments should be sterilized after treatment in the G 7781 Dental Thermal Disinfector. If, however, sterilization is not feasible because the instrument will be damaged by higher heat exposure, the instruments may be treated terminally in the G 7781 Dental Thermal Disinfector. Semicritical instruments do not penetrate soft tissues or bone but contact oral tissues, e.g. mirrors and amalgam placement instruments.

Noncritical instruments may be treated terminally in the G 7781 Dental Thermal Disinfector. Noncritical instruments or devices come into contact only with intact skin, e.g. external components of x-ray heads.

Instruments suitable for processing in the thermal disinfectors

All instruments, accessories, and other items to be cleaned and disinfected in the G 7781 Dental Thermal Disinfector should have the following properties:

- heat resistance to a temperature of up to 95°C/203°F
- corrosion resistance in the presence of heat and alkalinity.

The high heat retention capacity of stainless steel allows for fast drying. Plastic has a lower heat retention capacity, thus needing a longer drying time. In this case, a slightly extended waiting period after the disinfection cycle of 5 - 15 min. may be necessary.

Aluminum discolors using the program DISINFECTION 93°C-10'. It may discolor using the program DISINFECTATION VARIO 93°C-10'. Aluminum only has a limited suitability for processing in this system.

Carbon steel may corrode in the process. Please try the corrosion resistance of carbon steel instruments with initially one instrument, or do not process carbon steel items at all. If you do process carbon steel items, the program DISINFECTATION VARIO 93°C-10' should be used.

Handpieces, drill bits, grinders, root canal instruments or other rotating instruments only have a limited suitability for the thermal disinfector. Please ask the manufacturer's advice on the suitability for processing in this system.

Do not clean fiberoptics or electrical equipment or components in the thermal disinfector.

Rhodium coated specula must be arranged so that their surfaces do not suffer any mechanical damage. Not all specula with glass are suitable for machine treatment.

In case you have any questions regarding the suitability of instruments for being processed in the G 7781 Dental Thermal Disinfector, please ask the instrument manufacturer's advise.

Cleaning without disinfection

All other programs are designed to clean goods without disinfecting them. These programs are:

Rinse

Wash 93°C

Please refer to "Program selection" for detailed information.

Setting the water softener

To avoid the build-up of calcium deposits on items being cleaned and in the machine, the water may need to be softened (where the supply hardness exceeds 107 ppm CaCO₃).

To ensure a steady supply of soft water the water softener must always be:

1. correctly set
2. regenerated with salt as soon as the "Reactivation" indicator light comes on.

The water softener should be set to correspond with the water hardness upon installation of the machine.

Your local water authority can advise you on the water hardness in your area.

Display Field	gr/gal	mmol/l	° fH	°eH	ppm CaCO ₃
18	6	1.07	10.7	7.5	107
17	7	1.25	12.5	8.8	125
16	8	1.42	14.3	10.0	143
15	9	1.60	16.0	11.3	160
14	10	1.78	17.9	12.5	179
13	11	1.96	19.6	13.8	196
12	12	2.14	21.4	15.0	214
11	13	2.31	23.2	16.3	232
10	15	2.67	26.8	18.8	268
9	17	3.03	30.4	21.3	304
8	19	3.38	33.9	23.8	339
7	22	3.92	39.3	27.5	393
6	24	4.27	42.8	30.0	428
5	28	4.98	50.0	35.0	500
4	32	5.70	57.1	40.0	571
3	38	6.76	67.8	47.6	678
2	48	8.54	85.7	60.1	857
1	71	12.64	126.7	88.9	1267
0					

Setting the water softener

The hardness range is divided into 18 units and a zero position. The machine is set at the factory for a water hardness setting of 8, corresponding to 339 ppm CaCO₃. If your water supply is harder or softer than this, the setting of the controls should be changed. Find the "Display Field" number corresponding to your local water hardness in the table.

- Press the "Drain" and "Drying" touch pads simultaneously and, while depressed, turn the machine on, using the main "On/Off" switch. "P..." will appear in the indicator panel.
- Press the "Reactivation" touch pad. The "P..." will disappear and setting "0" will appear in the display field. This setting "0" can now be changed if necessary. To do this:
- Press the "DRYING" touch pad as many times as necessary for the desired value to appear in the display field.
- Press the "START" touch ad. "SP" appears in the display field.
- Press "START" once more. The setting will now be stored. The display field clears.
- The machine is now ready for operation.

Setting the water softener

If the water hardness in your area is permanently below 107 ppm CaCO₃, you do not need to soften the water. Please deactivate the water softener by:

- Selecting the setting "0" in the display field according to above instructions. The "REACTIVATION" control light will not come on and the water softener will not need to be reactivated.

For instructions on **reactivating the water softener**, see page 30.

Opening and closing the door

To open the door

- press the "DOOR" button on the control panel and open the door.

The door should only be opened during operation for emergencies, e.g. if articles are knocking together. If this occurs in the disinfection program, restart the complete program.

To close the door

- lift the door upwards and push until it clicks into position. Do not press the "DOOR" button.

Loading and unloading the machine

The disinfecter normally uses an upper and a lower basket.

Depending on the type and shape of the items being cleaned, inserts can be supplied.

The diversity of the inserts is so great that it is not possible to illustrate them all or give detailed instructions on their use here.

E.g. the thermal disinfecter will allow hollow instruments to be internally cleaned and disinfected using the upper basket O 177.

Removing excess soils

- Empty all items to be cleaned before loading into the machine.

Ensure that no acid or solvent residues, especially hydrochloric acid or chlorides, get into the wash cabinet.

Notes

- Load the items to be cleaned so the water will come into contact with all surfaces. This ensures that they will be properly cleaned and disinfected.
- Hand instruments should be processed in cassettes like the E 146, E 363, or E 373.
- Hinged instruments should be placed into the universal mesh tray E 378 or E 379 with the hinge opened at an angle of about 90° (right angle).
- Hollow instruments should be treated in the upper basket O 177, and be positioned on jets or funnels.
- Do not place items to be cleaned inside other pieces where they may be concealed.
- Vessels should be inverted and placed in the correct inserts.
- Deep based items should be placed at enough of an angle for water to run off them freely.
- Tall and narrow pieces should be placed in the center of the basket to ensure good coverage with water.
- Hollow instruments may only be processed correctly, i.e. cleaned and disinfected inside and outside, in the appropriate upper basket O 177.
- The spray arms must not be blocked by items which are too high for the basket or which hang down in its path. If necessary, manually rotate the arm to test it.
- The flap of the powder detergent dispenser on the door must not be obstructed and be prevented from opening when the door is closed.
- In order to avoid corrosion, it is recommended that only heat and corrosion resistant items be cleaned in the machine. **For the suitability of instruments, please refer to "Indications for use".**
- Care should be taken that as little dental cement or amalgam remains on the instruments as possible. However, where necessary, the instruments can be cleaned manually after thermal disinfection (following health and safety regulations) with minimized danger of infection.

Loading and unloading the machine

- Use thermally stable plastic items only.
- Immediately after the program finishes, partially open the door (about 4 inches or 10 cm) for 10 to 15 minutes. This allows the goods to cool down to avoid burning or scalding. Additionally, good drying results are achieved using the residual heat, which will help prevent the instruments from corroding. Aluminium trays are usually not suitable for thermal disinfection.
- Handpieces, drill bits, grinders, root canal instruments or other rotating instruments only have a limited suitability for the thermal disinfecter. Please ask the manufacturer's advice on the suitability for processing in this system.

Do not clean fiberoptics or electrical equipment or components in the thermal disinfecter.

Important

Make sure the spring loaded coupling engages correctly when the upper basket is inserted into the machine. There should be a tight fit between the coupling and the water inlet connector at the top of the chamber. If there is not, adjust the adapter as follows:

- Loosen the holding ring on the upper basket.
- Push up the adapter so it is 1/4" higher than the water inlet connector, and tighten the holding ring.

Select baskets and inserts which are appropriate for the application.

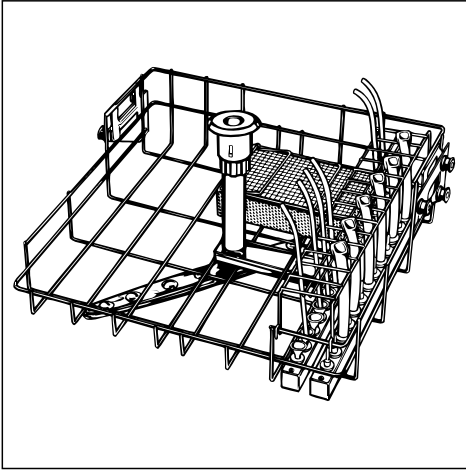
Disinfection monitors

Although the adhesion to the thermal disinfection parameters (93°C/200°F/ 10 min. +/-2°C) is monitored by the electronic control, we advise to independently check the unit once a day with the first run.

The Disinfection Control Tubes by A. Browne Ltd., distributed by Miele, are designed to monitor the time temperature combination of 93°C/200°F/ 9min. They may be placed in the filter combination. These indicators change color when the parameters are met. Although this indicator does not indicate the exact disinfection parameters, they will alert the user to large discrepancies from them.

Loading and unloading the machine

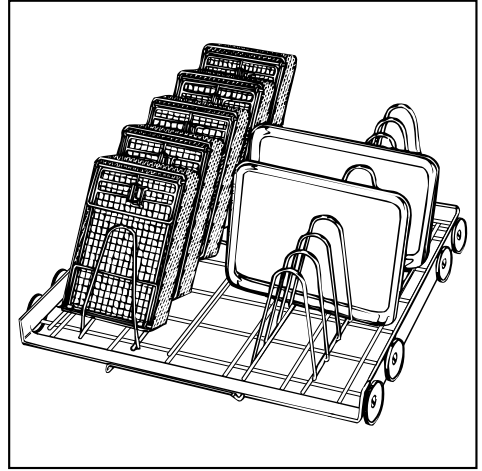
Loading examples



Upper basket O 177

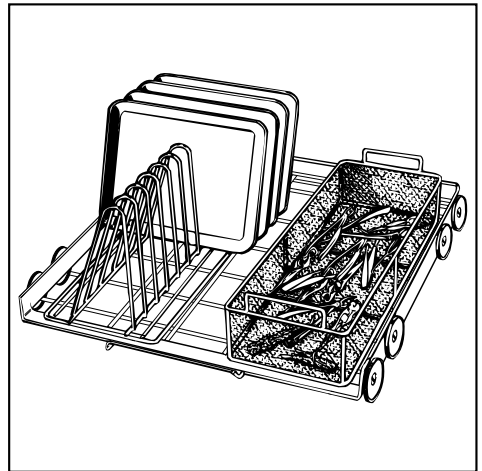
The upper basket O 177 features 28 jets/funnels for direct injection of hollow instruments like syringe tips or evacuation tips. The left side is free for alternative inserts.

Place hollow instruments directly onto the jets. Where the inner diameter of the hollow instruments does not allow for positioning onto the jets, the jets may be replaced by funnels.



Bottom basket U 165

Left hand side: insert E 131 for 5 mesh trays (E146) and holders (E 328) for double sided instruments. Right hand side: E 130 insert for 10 trays.



Bottom basket U 174 insert

Left hand side: E 130 for 10 trays.
Right hand side: E 379 universal mesh tray for various instruments.

Loading and unloading the machine

Unloading the machine

When the cycle is finished the indicator light next to the "START" touch pad will go out.

- If one of the "DISINFECTION" programs was chosen, check the "DISINFECTED" indicator light. If it is not lighted, the load is not disinfected! In this case please call technical assistance.
- Check, if any warning lights (left hand side of the control panel) are on, or if the digital display shows two dashes. If so, refer to the section "Correcting minor faults", or call technical assistance.
- In case you used a disinfection monitor (disinfection control tubes), check for the accuracy of the process. We advise to document the results.
- Open the door partially (about 4" / 10 cm). Let the load cool down for about 10-15 min. During this time the load will usually dry out.
- In case you use powder detergent check, if the dispenser lid has opened. If not, the instruments might not be clean!
- In case you use rinse aid check the small bulls eye on the right hand side of the inner side of the door. It has to be black. If not, replenish the liquid door dispenser with rinse aid.
- Now you can safely unload the machine.

Adjusting the top basket

Adjustable top baskets can be used in this machine. They can be raised or lowered by 3/4" / 2 cm from the initial setting.

- In the middle position the basket will accommodate:
instruments, utensils, accessories and inserts up to 7 1/2" / 19 cm in height
while the lower basket can accommodate:
■ instruments, utensils, accessories and inserts up to 9 3/4" / 19 cm in height.

For further details regarding container height combinations, see table below.

Top basket position	Top basket height cm	Bottom basket height cm
top	6 5/8" (17 cm)	10 5/8" (27 cm)
middle	7 1/2" / 19 cm)	9 3/4" (25 cm)
bottom	8 1/4" (21 cm)	9" (23 cm)

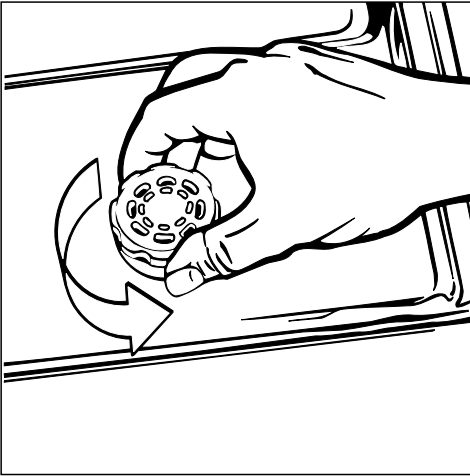
To adjust the top basket

- Pull out the upper basket until a resistance is felt, lift from the runners and remove.
- Unscrew the knurled nuts on both sides of the basket and reposition as necessary.

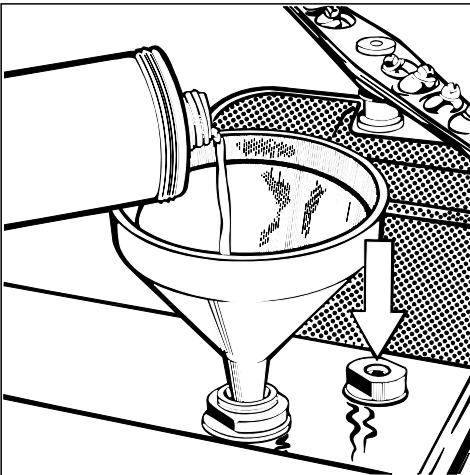
Adding rinsing agent

A storage container incorporated in the door has a capacity of approximately 7.8 fl.oz. / 200 ml. The required amount of appropriate liquid rinsing agent (Neodisher MielClear) is dispensed automatically from this container.

Adding rinsing agent



- Unscrew the cap



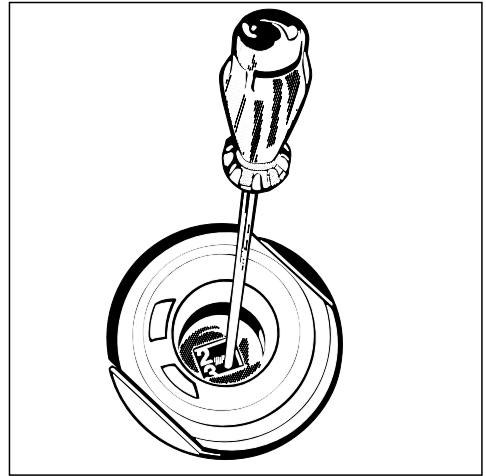
Pour rinsing agent into the storage container until the level indicator is dark (see arrow in illustration). Use funnel if necessary.

- Firmly tighten the screw cap. Clean up any spillage.

Refilling with rinsing agent

The level indicator shows how much rinsing agent is left in the container. When there is no dark coloring visible in the level indicator, the container needs to be refilled.

Setting the dosage



The dosage adjustment in the opening has settings from 1-6 (0.035-0.2 fl.oz. / 1-6 ml). It is set to "3" (0.1 fl.oz. / 3 ml) at the factory.

- Use a higher setting if spots are left on the cleaning goods after drying.

If smearing appears, use a lower setting.

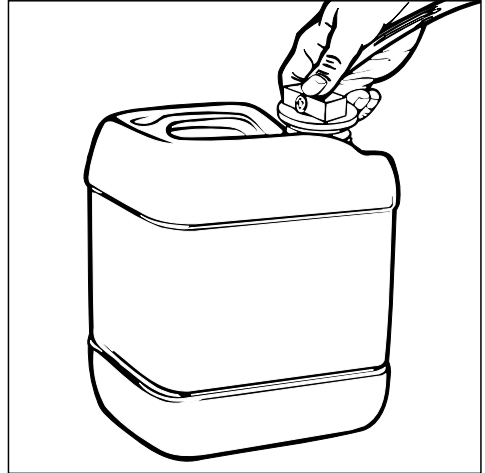
Adding neutralizing agent

To reduce the pH level of the wash solution after the alkaline phase, special neutralizing acids will be used in the first interim rinse.

- Place the container with neutralizing agent on the floor close to the machine.

When the "NEUTRALIZER" indicator light on the control panel lights up

- fill the container with neutralizing agent, or change container, and then:



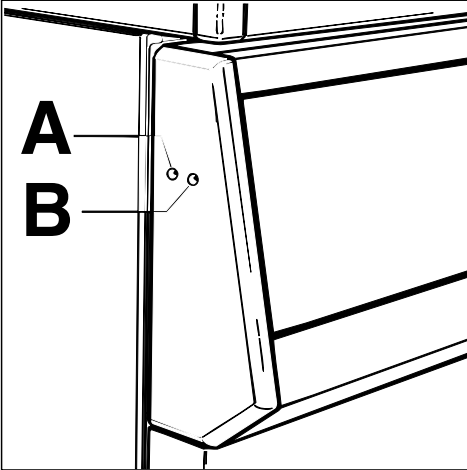
- place the siphon tube firmly in the opening of the free-standing container (pay attention to the color coding).

The container should never be allowed to empty.

Venting the liquid dispensing system

Before using the machine for the first time, or if the container has been allowed to empty, the dispensing system must be vented. Please proceed as follows:

- Press the "ON/OFF" button.



- Use a sharp object to press in switch "A" and/or "B" at the left hand side end of the control panel for three and a half minutes.

Switch "A" Dispensing system for neutralizing agent.

Switch "B" Dispensing system for cleaning agent.

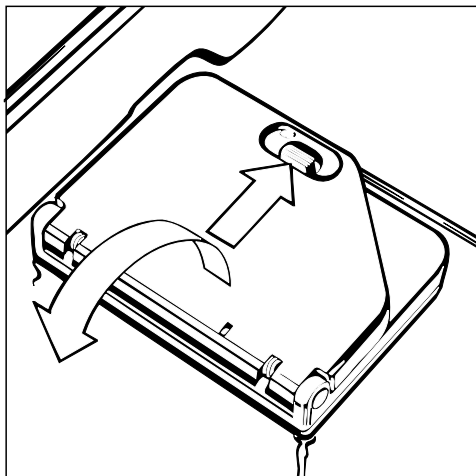
Each time the system is vented any liquid which runs into the wash cabinet must be washed out as follows:

- Select the "RINSE" program.

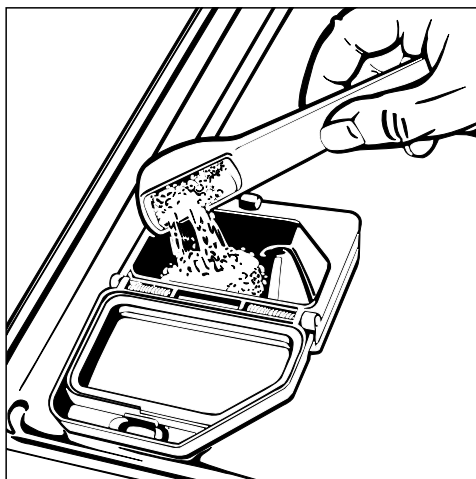
After this has run the dispensing system is filled and ready for use.

Adding detergent

Pour powder detergent into the powder dispenser on the door before each program (see next page for "DISINFECTATION" program).



- Pull the opening catch on the container flap forward (see arrow). The flap will spring open (the flap will remain open at the end of a program).



- Fill the dispenser with the detergent manufacturers recommended dosage. When calculating the dilution ratio of the detergent, 10.5 liters is the amount of water that is used the main wash cycle (For example, if 3g/l dilution is required use about 30 grams of detergent).
- Close the dispenser lid.
- Use only specially formulated cleaning agents which are approved of by Miele.

Under certain circumstances, different additives may be necessary. Miele Customer Service will be please to advise you.

Note

Take care when handling liquids such as detergents, neutralizing agents or rinse aids. These may contain acids or alkalis. Follow the manufacturer's safety procedures and the instructions on the packaging carefully. Wear protective gloves and goggles if necessary.

IMPORTANT SAFETY INSTRUCTIONS

G 7781

To the person responsible for the machine:

- Make this pull-out with the Warning and Safety Instructions available to any operators of the machine. Place it near the machine, where it can be seen.
- Ensure that operators know and understand these Warning and Safety Instructions, and observe them in use.

When using an electrical appliance, basic precautions should always be followed including the following:

READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE

WARNING –

The manufacturer cannot accept responsibility for damage caused when the appliance is not used according to the instructions, or for uses other than those for which it was intended.

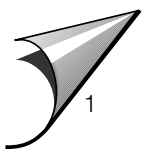
■ This special commercial machine is suitable for the applications mentioned in the operating instructions. Do not use for purposes other than those for which it was designed, as these may be dangerous. The manufacturer cannot be held responsible for damage caused by improper use.

■ Do not allow small children or unauthorized personnel access to the machine or its controls.

■ If thermal disinfection is required (93°C/200°F/10min.), the process needs to be checked and documented regularly. This can be done by checking the disinfection control diode on the machine. Alternatively, a chemical indicator may be used (e.g. the Disinfection Control Tubes by A. Browne Ltd., supplied by Miele). These disinfection control tubes should be placed in the filter combination. After the disinfection cycle, they may be inspected by removing the coarse filter.

■ The disinfection program should not be interrupted, as this would affect the disinfection result. If interruption is necessary, the program should be repeated.

■ Do not install the machine in areas where there is a risk of explosion.



IMPORTANT SAFETY INSTRUCTIONS

■ The machine is built in accordance with current safety requirements. Any repair work should only be carried out by a suitably qualified and competent engineer. Repairs by unqualified persons could be dangerous.

■ The electrical safety of this machine can only be guaranteed if connected to an electrical system that complies with all local and national regulations. It should be checked by an expert if necessary. The manufacturer cannot be held responsible for damage caused by incorrect wiring.

■ The machine should only be installed by a suitably qualified and competent contractor. Before connecting the machine, the installer should check that the voltage and frequency of the electrical supply correspond with the details on the data plate of the machine.

■ Only genuine Miele parts or accessories should be used with the G 7781 Dental Thermal Disinfector. The performance and safety of non-genuine parts or accessories cannot be guaranteed, and use of such parts or items may void the machine warranty. If you have specific questions about machine options or accessories, please call Miele.

■ The use of Neodisher cleaning, neutralizing, and rinsing agents is strongly recommended. The use of any other products may invalidate the disinfection resus and the manufacturer's warranty.

■ The machine is completely isolated from the electricity supply only when it is unplugged or the circuit breaker is turned off. This must be done before any repair work is carried out.

■ The water in this machine must not be used as drinking water.

■ Only use detergents which have been approved of by Miele. Do not use solvents in your machine as there may be a danger of explosion.

IMPORTANT SAFETY INSTRUCTIONS

■ Take care when handling liquids such as detergents, rinsing or neutralizing agents. These may contain acids or alkalis. Follow the instructions and safety procedures on the packaging carefully and wear protective gloves and goggles. Read the Material Safety Data Sheets.

■ Avoid inhalation of powder cleaners.

■ Empty any containers or glassware before placing it in the machine. Do not allow any acids or solvents, especially hydrochloric acid and chlorides, to get into the wash cabinet.

■ Be careful when sorting instruments with sharp pointed ends. If possible, place the pointed end downwards.

■ Install special inserts in accordance with the instructions provided.

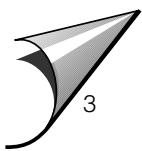
■ When using the machine be careful not to scald or burn yourself. Baskets and inserts must first be allowed to cool down. Any water which may have collected in incorrectly loaded items will be very hot and should be emptied into the wash cabinet.

■ Do not touch the heating elements after the end of a program. You could burn yourself.

■ Do not hose the machine down to clean it.

■ Do not sit or lean on the open door. This could cause the machine to tip and be damaged.

■ When disposing of an old machine, make sure the door catch is removed. This will prevent children at play from being accidentally locked in.

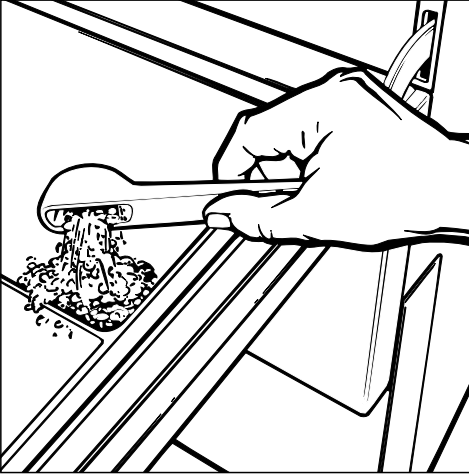


IMPORTANT SAFETY INSTRUCTIONS

■ All relevant safety procedures should be obeyed. Relevant safety procedures include, but are not limited to, the Centers for Disease Control's Recommended Infection Control Practices for Dentistry and the OSHA Blood-borne Pathogens Standard.

The manufacturer cannot be held responsible for damage caused by failure to heed the warning and safety instructions.

SAVE THESE INSTRUCTIONS



The different programs and their applications are described in the following program chart.

Powder detergent may be placed directly on the door in the "WASH 93°C" and "DISINFECTION 93°C - 10'" programs.

As an optional extra, this machine can be equipped with a DOS module C 60, an automatic dosing pump for liquid detergent. This is connected externally by plugging into the rear of the machine.

The DOS module is supplied with separate instructions for installation and use.

Program Chart G7781

Program	When to use	Detergent (when not using liquid detergent)
		Please follow manufacturer's instructions.
RINSE (COLD)	To rinse heavily soiled instruments, e.g. after soaking them in a disinfecting agent. This avoids the build-up of foam in the machine.	
DISINFECTION VARIO 93°C-10'	For protein soils (such as blood and secretions) – for cleaning and thermal disinfection with 90-93°C and 10 minutes holding time for instruments which are susceptible to chemicals and changes in temperature.	Preferably a neutral liquid detergent should be dispensed
WASH 93°C	Cleaning of instruments at 93°C with 3 mins holding time.	30 grammes on the right-hand side <u>of the door interior</u>
DISINFECTION 93°C-10'	For thermal disinfection and cleaning of instruments at 93°C with 10 mins holding time.	30 grammes on the right-hand side <u>of the door interior</u>

Program Chart G7781

Program cycle						Miscellaneous
1. Pre-wash	2. Cleaning and/or thermal disin.	3. Interim rinse I with neutralization *)	4. Interim rinse II	5. Final rinse and/or disin.	6. Drying (extra program)	*) see "Programming special functions"
X						
X	X 45°C**)	X	X	X 93°C**)	(X)	**) To change temperature, see "Programming special functions"
	X 93°C	X	X	X 80°C	(X)	
	X 93°C	X	X	X 80°C	(X)	

- Immediately after the program finishes, partially open the door (about 4 inches or 10 cm) for 10 to 15 minutes. This allows the goods to cool down to avoid burning or scalding. Additionally, good drying results are achieved using the residual heat, which will help prevent the instruments from corroding. Aluminium trays are usually not suitable for thermal disinfection.
- "REACTIVATION"
(see "Reactivating the water softener")
- "DRAIN"
 - Press the "ON/OFF" button.
 - Press the "DRAIN" touch pad.
 - Press the "START" touch pad.

Turning the machine on and off

Program sequence indicator

When a wash or disinfection program has been selected, the indicator lights in the display will show the program sequence.

PRE-WASH

WASH

RINSE

FINAL RINSE

DRYING (optional)

DISINFECTED (only valid with the "DISINFECTION 93°C - 10'" and the "DISINFECTION VARIO 93°C-10'" programs)

When part of the program is completed, the corresponding indicator light goes out. The wash cycle is completed when the "START" light goes out. The display panel will show the total running time of the program.

Turning off

- Press the "ON/OFF" switch and let it spring out. The machine can now be opened and unloaded.

Interrupting a program

Once a program is running, it should only be interrupted in extreme cases, such as when articles in the machine rattle or bump against each other and have to be rearranged.

The machine must be turned off, the water drained and the program restarted:

- Turn the machine off by pressing the "ON/OFF" switch and letting it spring out.
- Select the "DRAIN" program.
- On completion, open the door and rearrange the articles securely and correctly (wear protective wear if necessary).
- Replenish the powder detergent dispenser in the door if necessary.
- Close the door. Reselect the program.

Important:

Make sure that the "DISINFECTED" light is lit at the end of a "DISINFECTION" program, if the door was opened before its completion. If the light is out, the disinfection parameters were not met and the entire program should be repeated.

Programming special functions

The following special functions can be programmed where appropriate,

1. Extending the water inlet from 60" to 120" with level control

If the inlet water pressure is lower than 35 psi / 2.5 bar, too little water will flow into the wash cabinet. By selecting the extended water inlet, more water will flow into the wash cabinet if there is low water pressure (between 15 and 35 psi / 1.0 and 2.5 bar).

- Turn off the machine.
- Press "DRAIN" and "DRYING" at the same time, while turning on the machine. "P3" appears in the display.
- Press "DISINFECTION 93°C-10". "10" or "11" will appear in the display.
 - 10 = 60" water intake
 - 11 = 120" water intake with level control
- Press "DRYING" to change the display to "11".
- Press "START". "SP" appears in the display.
- Press "START" again. The change has been stored and the display field clears.

2. Deactivating of neutralizer dispensing

The G 7781 is programmed from the factory to dispense neutralizer during the first interim rinse. It is strongly recommended to use this option to avoid discoloration or corrosion. However, dispensing of neutralizer might not be necessary if a pH neutral detergent is being used.

To deactivate the neutralizer setting perform the following.

- Turn off the machine.
- Press "DRAIN" and "DRYING" at the same time, while turning on the machine. "P3" appears in the display.
- Press "WASH 93°C-3": "20" or "21" will appear in the display.
 - 20 = without interim rinse I
 - 21 = with neutralizing agent dispensed in interim rinse I
- Press "DRYING" to change from 21 to 20 or vice versa.
- Press "START". "SP" appears in the display.
- Press "START" again. The change has been stored and the display field clears.

Programming special functions

3. Altering temperatures T1 (wash temperature) and T2 (rinse temperature) in the "DISINFECTION VARIO 93°C-10" program

The wash and final rinse temperatures are set as standard at 45°C/113°F and 93°C/200°F. If a wash temperature of 60°C/140°F is required, this can be set in the following manner:

- Turn off the machine.
- Press "DRAIN" and "DRYING" at the same time, while turning on the machine. "P3" appears in the display.
- When DISINFECTION VARIO 93°C-10' is pressed, "30" appears in the display. Press "DRYING" to change "30" to "31" or vice versa.
- When "RINSE" is pressed, "40" appears in the display. Do not change this setting as it would be insufficient for disinfection!
- The following options are possible:

	Main Wash	Rinse
30 – 40	45°C 113°F	93°C 200°F
30 – 41	45°C 113°F	80°C 176°F
31 – 40	60°C 140°F	93°C 200°C
31 – 41	60°C 140°F	80°C 176°F

- To store the setting, press "START" twice.

Reactivating the water softener

When the "REACTIVATION" indicator light on the left hand side of the control panel comes on during a program, the built-in water softener is depleted and cannot supply any more soft water.

It should be reactivated with salt as soon as the wash program has finished. If this cannot be done, and further loads have been washed, then the reactivation process should be carried out twice in succession.

Each reactivation cycle requires:

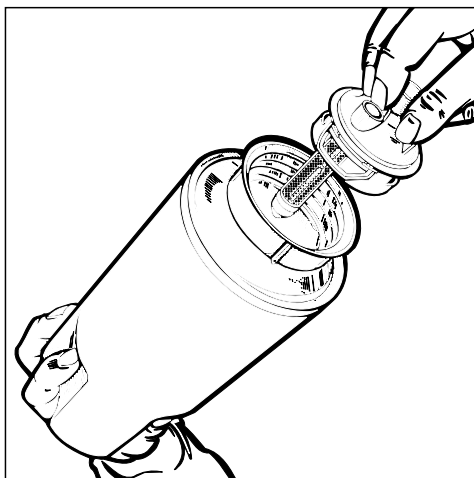
- 2 kg / 4.4 lb. of water softener salt.
A granule size of 1 to 4 mm is recommended by Miele. Do not use any other type of salt, it may damage the water softener.
- The plastic salt container which is supplied with the machine.

Important

If the only reactivation salt available is fine grain, please consult Miele Customer Service.

Water softener salt with granules larger than 4 mm cannot be used.

Filling the salt container



- Unscrew the filter insert from the salt container and remove.

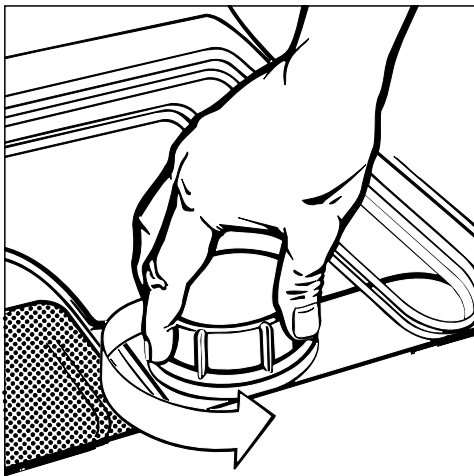
**WARNING: PERSONAL INJURY/
EQUIPMENT DAMAGE HAZARD**
Do not fill container with cleaning detergent! Fill with reactivation salt only! Detergents can be corrosive, causing potential personal injury and damage to the water softener.

- Fill the salt container with approx. 4.4 lbs (2 kg) of granular salt and screw the filter insert back in place.

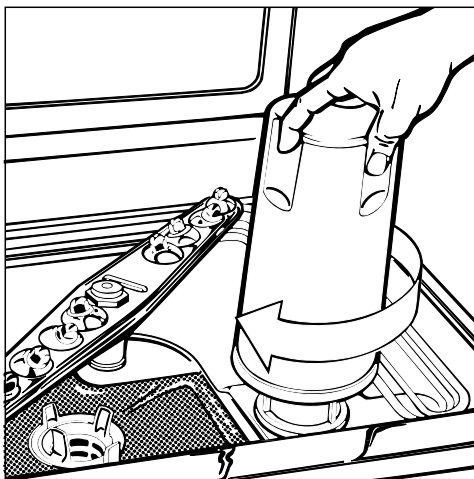
Reactivating the water softener

Position the salt container as follows:

- Remove the lower basket from the machine.



- Unscrew the plastic cap in the base of the wash cabinet.



- Place the salt container on the reactivation socket and screw firmly into place.

- Close the door.
- Turn on the machine.
- Press the "REACTIVATION" touch pad.
- Press the "START" touch pad.

The reactivation program proceeds automatically and finishes when the "Reactivation" light at the left hand side of the control panel and the "Start" indicator light have gone out.

Then:

- Turn off the machine.
- Remove salt container slowly, allowing pressure to be released. Do not open by force. If you cannot unscrew it by hand, contact the Miele Service Department.
- Screw the plastic lid back on the socket.
- Reposition the lower basket.
- Rinse the salt container and filter insert thoroughly.

Important

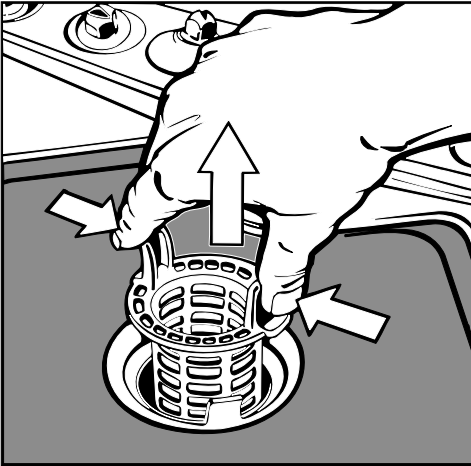
If the water pressure is below 35 psi / 2.5 bar or if it fluctuates, the water softener cannot be reactivated in the normal way. After reactivation, salt may still be found in the salt container.

To use up the salt and to wash out the water softener, the "Reactivation" program must be run again.

Cleaning the filters in the wash cabinet

The filter combination in the base of the cabinet should be inspected regularly and cleaned if necessary.

Cleaning the coarse filter



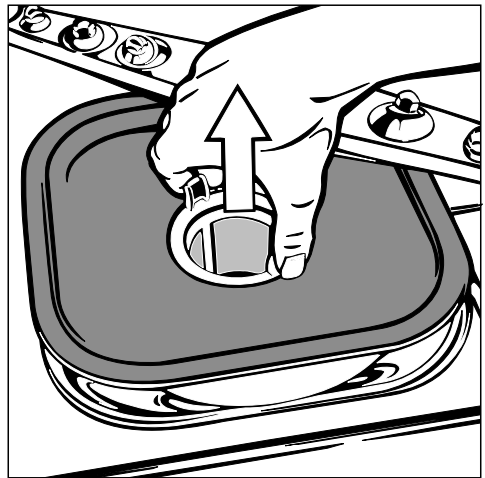
- Press the 2 tabs together, remove and clean the filter.
- Put the clean filter back in position and press until it clicks in place.

Cleaning the fine, flat and micro-fine filters

- Remove the coarse filter.
- Remove the fine filter from between the flat and the micro-fine filters.



- To unscrew the micro-fine filter, take hold of the two tabs and turn twice in a counter clockwise direction.



- Pull up and remove the two filters.
- Clean the filters.
- The filter combination is then replaced in the reverse order in which it was removed.

The machine must not be used without all filters in place.

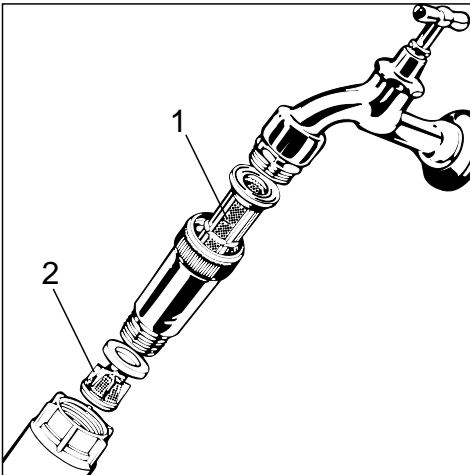
Cleaning an care

Cleaning the water inlet filters

Filters are incorporated into the stainless steel housing located between the valve and the hose.

The filters must be cleaned when dirty, otherwise insufficient water will flow into the wash cabinet,

- Turn off the valves.
- Unscrew the water inlet hoses.



- Clean the large area filter (1) and the fine filter (2) or replace if necessary.
- After reconnection, turn on the valves and test for leaks.

Correcting minor problems

With the aid of the following explanatory notes, minor problems can be corrected without contacting the Miele Service Dept.

Any work on the electrical components of the machine should only be carried out by a suitably qualified and trained person.

Warning lights

The "DRAIN/FILL" warning light flashes

- Check that both water intake hoses are connected to the water supply and that the faucets are turned on.
- Check the drain hoses. They should not be higher than 3 feet / 1 m from the base level of the machine. The inner diameter of the hoses should in no point be less than 3/4" / 2 cm.
- Check if any hoses are kinked. If so, please straighten them out.
- The water in the machine must then be pumped out by choosing the "Drain" program. Then please restart the program you would like to run.

The "REACTIVATION" light is on

- The water softener needs to be replenished. Please refer to "Reactivating the water softener".

The "DETERGENT" light is on

- You are using the optional DOS module C 60. The liquid detergent container has to be refilled.

The "NEUTRALIZER" light is on

- The neutralizer container has to be refilled.

The display shows two dashes

- Please call technical assistance. The machine is stalled and cannot be operated until it is reset by a trained technician.

Correcting minor problems

Unsatisfactory cleaning results

Unsatisfactory cleaning results may occur as drying spots, or as spots that look like corrosion. Presumably corrosive spots often are bio-debris. They have the shape of drying spots, blurry edges, and the color of rust. Bio-debris may also appear on surfaces that were not contaminated before processing. Please observe:

- Have the instruments been stored in the machine for more than 6 hours? If so, please run the machine, even partially loaded, within 6 hours of loading.
- Was enough detergent used? Please check the dosage of the detergent and adjust, if necessary. Too little as well as too much detergent may deteriorate the cleaning results.
- Can both spray arms rotate easily, even with the machine loaded? If not, please rearrange the goods to be cleaned in a way so that the spray arms can rotate freely.
- Does the flap of the powder detergent dispenser open? If not, check if anything obstructs the flap and prevents it from opening. Otherwise, please call technical assistance.

The water in the wash cabinet is not heated; the program sequence lasts too long

This machine has a resettable temperature limiter which will shut off the heating elements in the case of overheating. This could be caused if large articles cover the heating elements or if the filters in the wash cabinet are blocked.

- Remove the cause of overheating.
- Take off the service panel (see next page).
- Press in the blue reset button on the temperature limiter.

If this switch trips repeatedly, the Miele Service Dept. must be contacted.

In the event any problems cannot be corrected, please contact the Miele Service Department.

The machine should only be installed by a competent contractor. The contractor should be experienced in installing machines that require electrical hook-up as well as plumbing.

The machine must be installed and leveled correctly. Any unevenness in the floor can be compensated for by screwing the adjustable feet in or out as necessary.

The machine can be installed in the following ways:

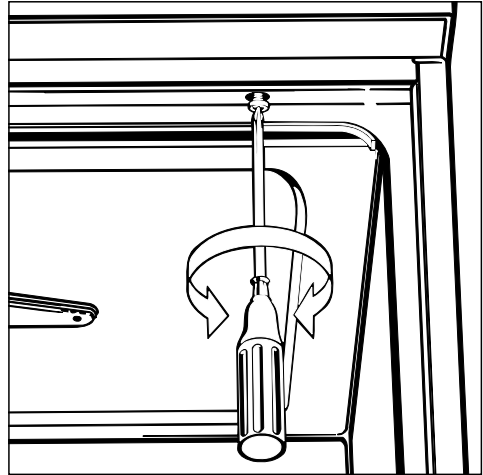
- Free-standing

- Under counter.

The recess should be at least 23 3/4" / 60 cm wide, 23 3/4" / 60 cm deep, and 33 1/4" / 85 cm high.

If necessary the **machine top can be removed** as follows:

- Open the door.



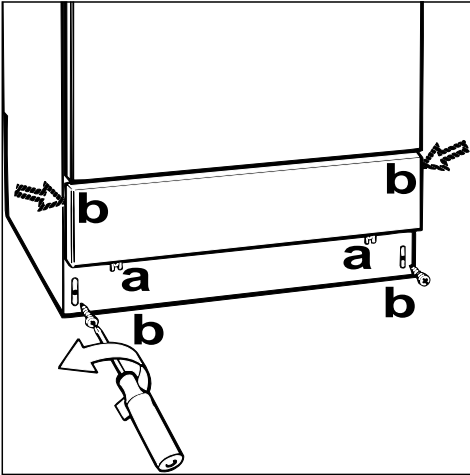
- Remove the screws on the left and right, using a Phillips screw driver.

- Pull the top forward, lift and remove.

By removing the lid, the machine can be built into a recess 32 1/4" / 83 cm high.

Installation

To remove the service panel and plinth



- Remove the two 8 mm bolts "a" from the service panel.
- Take hold of the service panel at both sides and pull forward.
- Remove all four plinth screws "b".
- Disconnect grounding lead if necessary.
- Remove plastic protective cap.

To re-assemble:

- Replace plastic protective cap, plinth facing and service panel in the reverse order in which they were removed.

Make sure the grounding lead is reconnected.

- Do not use silicone sealant to seal the gaps between the machine and any neighboring units as this will hinder ventilation to the circulation pump.

Depending on the installation requirements, the following kits are available:

34 1/4" / 87 cm high recess

This kit consists of longer machine feet and a base plate.
(Part # 1107961)

Steam deflector

for use where the machine will be installed under a wooden countertop. The underside of the work surface is protected from steam damage by a plate of niro-steel.
(Part # 1156150)

All electrical work must be carried out by a qualified electrician and in compliance with all local and national electrical codes.

Before making any connections, check that the voltage shown on the data plate corresponds to your power supply.

The machine is supplied as standard for connection to a 208 V 60 Hz single phase power supply and is fitted with a power supply cord 6 ft / 1.8 m long with a cross-section of AWG 10-4. It should be connected to the main power supply according to the opposite chart.

Voltage: 208 V, single phase
 Frequency: 60 Hz
 Rated load: 6.0 kW
 Circuit breaker: 30 A per phase

The machine can be converted for connection to a 3 phase power supply.



WARNING
THIS APPLIANCE MUST BE CORRECTLY GROUNDED!
The manufacturer cannot be held responsible for damage or injury caused by incorrect or missing grounding.

The wiring diagram can be found behind the plinth on the left hand side, attached to the floor of the machine.

The data plate with serial and model numbers is on the rear of the machine and on the plinth behind the service panel.

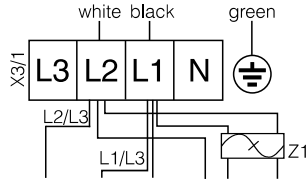
Possibilities of connection:

Single phase



208V 2Ø 60 Hz
 6,0 kW  5,4 kW  2x30A

Supply cord: 3 x AWG 10
 cord type: S, SE, SO, SOO, ST, STO or STOO

Circul. pump: 600 W / 0,8 Hp **CD:**
 Drain pump: 080 W / 0,1 Hp Fan Heater: 1500 W
 Cond. pump: 080 W / 0,1 Hp Fan: 270 W / 0,4 Hp

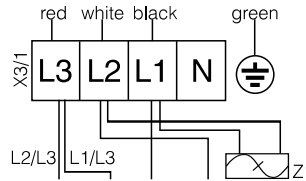


Three phase

208V 3Ø 4 W 60 Hz
 6,0 kW  5,4 kW  3x20A

Supply cord: 4 x AWG 12
 cord type: S, SE, SO, SOO, ST, STO or STOO

Circul. pump: 600 W / 0,8 Hp **CD:**
 Drain pump: 080 W / 0,1 Hp Fan Heater: 1500 W
 Cond. pump: 080 W / 0,1 Hp Fan: 270 W / 0,4 Hp



Green must be connected to ground!

Plumbing

Connection to the water inlet

- The machine must be connected to the water supply in accordance with all local and national plumbing codes.
- The machine is constructed with an air gap/anti-siphoning device on both the intake and the drain sides. No such additional devices are necessary or recommended, as they will impede the water inflow into and out of the washer.
- The water pressure must be between 35 and 145 psi (2.5 - 10.0 bar). If the water pressure is not within this range, the Miele Service Dept. can advise you of the measures to be taken (see also "Programming special functions").
- This machine is designed for cold water connection only, in view of its technical application. Both inlet hoses (water supply and steam condenser) should be connected to the valves for cold water.
- Valves with 3/4" male hose thread should be provided on-site, and should be easily accessible.
- For additional protection of the valves against impurities in the water supply, large surface area filters are enclosed in the kit supplied with the machine (see diagram in "Cleaning and care, water inlet").

Drainage

- The drain system is equipped with a non-return valve which prevents dirty water from flowing back into the machine.
- The machine is supplied with two 5 ft. / 1.5 m long flexible drain hoses with an inner diameter of 3/4" / 2 cm. They should not be shortened or attached to any fittings that would cause a reduction in water flow.
- Longer drain hoses up to a length of 13 ft / 3.3 m are available if required.
- Both hoses can be attached to existing drain lines through the use of a 1 1/2" / 3.5 cm or larger stand pipe / P-trap combination. Alternately, the hoses can be connected directly to existing drain lines, provided any fittings or adapters used do not reduce the water flow.
- The drain hoses should not exceed 13 ft / 3.3 m in length, or be attached to the main drain at a point higher than 3 ft. / 1m above the floor.
- A floor drain is permissible.

The water in the machine is not suitable for drinking.



Miele Appliances, Inc.

National Headquarters

9 Independence Way,
Princeton, NJ 08540
Phone: 609-419-9898
or 800-843-7231
Fax: 609-419-4298
Internet: <http://www.mieleUSA.com>

Southeast Regional Headquarters

6400 Congress Avenue
Suite 1700
Boca Raton, FL 33487
Phone: 561-995-8030
Fax: 561-995-8083

West Coast Regional Headquarters

680 Eighth Street
Suite 168 - Sobel Building
San Francisco, CA 94103
Phone: 415-241-6820
Fax: 415-241-6822

WEST COAST REGIONAL SERVICE 800-245-8215

Southern California Showroom

189 North Robertson Blvd.
Beverly Hills, CA 90211
Phone: 310-855-9470
Fax: 310-358-0238

Mid West Regional Headquarters

3100 West Dundee Road
Suite 901
Northbrook, IL 60062
Phone: 847-714-9433
Fax: 847-714-9434

Miele Limited

Canadian Head Office

55G East Beaver Creek Road
Richmond Hill
Ontario L4B 1E5
Phone: 905-707-1171
Toll-Free: 1-800-565-6435
Fax: 905-707-0177

Internet: www.miele.ca
E-Mail: info@miele.ca
(general enquiries)
E-Mail: service@miele.ca
(technical service)

BC Regional Sales Office

3731 North Fraser Way
Unit 200
Burnaby
British Columbia V5J 5J2
Phone: 604-434-1300
Fax: 604-434-1309

Quebec Regional Sales Office

400 Laurier Avenue West
Suite 600
Montreal
Quebec H2V 2K7
Phone: 514-277-1818
Toll-Free: 1-877-636-4353
Fax: 514-277-1838