

Operating Instructions

Dental Thermal Disinfector G 7881

To prevent accidents
and machine damage
read these instructions

before
installation or use.



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IMPORTANT SAFETY INSTRUCTIONS

This machine complies with all relevant legal safety requirements. Incorrect use however, can lead to personal injury and damage to property.

Read the operating instructions carefully before starting to use this machine. This way you will avoid the risk of accidents and damage to the machine.

Keep these instructions in a safe place for reference, and pass them on to any future user.

Correct use

■ This machine is designed for commercial use and for specialized applications only, as described in these Operating Instructions. Alterations to the machine or using it for purposes other than those for which it was designed would be unauthorized and could cause harm.

Only clean and/or disinfect instruments and utensils (dental) in this machine if the manufacturer has stated that they are suitable for machine processing. Follow the instrument manufacturer's instructions. The manufacturer cannot be held liable for damage caused by improper or incorrect use of the machine.

Please pay attention to the following notes, to maintain safe procedures.

- The machine should only be installed by a 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.
- Do not install the machine in an area where a danger of explosion or of freezing conditions may be present.
- 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.
- A damaged machine could be dangerous. Turn off at the main power immediately and call the Miele Service Department or an authorized and trained Miele Service Dealer.

IMPORTANT SAFETY INSTRUCTIONS

■ Personnel operating the machine should be trained regularly. Children and untrained personnel must not be allowed access to the machine or its controls.

■ Take care when handling liquid agents and additives. These may contain irritant or corrosive ingredients. Do not use organic solvents as these could cause an explosion. Wear protective gloves and goggles. With all chemical agents the manufacturer's safety conditions must be observed.

■ Avoid inhalation of powder cleaners. They can cause burning in the mouth and throat if swallowed, or inhibit breathing.

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

■ Do not sit or lean on an open door. The machine could tip up and be damaged or cause an injury.

■ Be careful when loading items with sharp pointed ends. Position them in the machine so that you do not hurt yourself or create a danger when the items are unloaded.

■ When using this machine in the higher temperature ranges be especially careful not to scald or burn yourself when opening the door! Baskets and inserts must be allowed to cool down before they are unloaded. Any water remaining in containers could still be very hot. Empty them into the wash cabinet before taking them out.

■ Do not touch the heating elements if you open the door during or directly after the end of a program, you could burn yourself. They remain hot for some time after the end of the program.

■ Never clean the machine with a water hose or a high pressure hose.

■ Before any maintenance or repair work is undertaken, the machine must be disconnected from the main power supply.

IMPORTANT SAFETY INSTRUCTIONS

■ Disinfection programs must not be interrupted, this can have a limiting effect on the disinfection result. However, should this be necessary, the complete program must be repeated.

■ Only use Miele approved cleaning agents formulated for use in washer disinfectors in this machine. Using unsuitable cleaning agents could adversely affect items being cleaned as well as components in the machine.

■ Pre-treatments with cleaning or disinfecting agents can create foam, as can certain types of soiling and rinsing agents. Foam can have an adverse effect on the disinfection and cleaning process. Manual pre-rinsing may be necessary.

■ The performance of the cycles was tested using Neodisher products. The use of other products is not discouraged but may not yield identical results. Please be aware that changes in formulation, storage conditions, etc. which may not be publicized by the chemical manufacturer can have a negative effect on cleaning results.

■ When using cleaning agents and specialized products, it is essential that the manufacturer's instructions are followed. Chemicals must only be used for the purpose they are designed for and in the situation specified, to the exclusion of other chemicals. This will avoid such dangers as chemical reactions and material damage.

■ The machine is designed **only** for operation with water and additive cleaning agents. Organic solvents must not be used in the machine. An explosion or machine corrosion could result.

IMPORTANT SAFETY INSTRUCTIONS

■ In critical applications where very stringent requirements have to be met, it is strongly recommended that all the relevant factors for the process, such as cleaning agent, quality of water etc. are discussed with the Miele Technical Application specialists.

■ If the cleaning result is subject to particularly stringent requirements, a regular quality control test should be carried out by the user to ensure that required standards of cleanliness are being achieved.

■ The mobile units and special inserts should only be used for their specific application.

■ Empty any containers or utensils before arranging them in the machine.

■ Do not allow any remains of acids or solvents, and in particular hydrochloric acid or chloride solutions to get into the wash cabinet. Similarly avoid any materials with a corrosive effect. The presence in compounds of any solvents should be minimal, (especially those in hazard class A1).

■ Ensure that solutions or steam containing hydrochloric acid do not come into contact with the steel outer casing of the machine, to avoid any corrosion damage.

■ Please follow the advice on installation in these instructions and the separate "Installation Instructions".

Using accessories

■ Only use genuine Miele accessories with this machine. Consult Miele on the type and application of such equipment.

Disposal of your old machine

■ Before disposing of your old machine, first make it unusable. Disconnect, cut off the cable and any plug from the cable. For environmental and safety reasons, ensure the machine is completely drained of any residual water and cleaning agent. (Observe safety regulations and wear safety goggles and gloves). Make the door lock inoperative, so that children cannot accidentally shut themselves in. Then make appropriate arrangements for the safe disposal of the machine.

The manufacturer cannot be held liable for damage caused by non-compliance with these Warning and Safety instructions.

Description of the machine

High-level disinfection

The G 7881 Dental Thermal Disinfector is suitable for automatic treatment of dental instruments and accessories. It cleans and in the disinfection program 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 this program 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 7881 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 7881 Dental Thermal Disinfector. Critical instruments are used to penetrate soft tissue or bone, e.g. forceps, scalpels, bone chisels or scales.

Semicritical instruments should be sterilized after treatment in the G 7881 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 7881 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 7881 Dental Thermal Disinfector. Noncritical instruments or devices come into contact only with intact skin, e.g. external components of x-ray heads.

Description of the machine

Instruments suitable for processing in the thermal disinfecter

In general, only high quality stainless steel instruments are suitable for processing in the G 7881. All instruments, accessories and other items to be cleaned and disinfected in the machine 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 heat retention capacity of stainless steel allows for fast drying. Plastic has a lower heat retention capacity, thus requiring a longer drying time. In this case, a slightly extended waiting period of 5-15 minutes may be necessary after the disinfection cycle.

Aluminum instruments may discolor during the cleaning process. Aluminum has only a limited suitability for processing in this system.

Carbon steel and chrome-plated instruments may corrode during the cleaning process. Processing these types of instruments in the G 7881 is **not** recommended.

Handpieces, drill bits, grinders, root canal instruments or other rotating instruments are not suitable for the thermal disinfecter. Do not process them in the thermal disinfecter.

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

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

If you have questions regarding whether an instrument is suitable for processing in the G 7881 Dental Disinfecter, please seek the advice of the instrument manufacturer.

Water quality

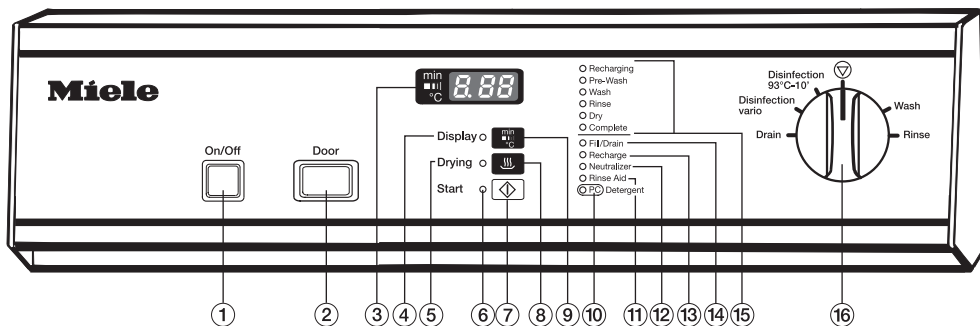
Good water quality is essential for processing instruments in the dental washer disinfecter. Otherwise, instrument corrosion may result.

Poor water quality consists of, but is not limited to, high concentrations of chlorides (over 50 ppm). High chloride levels will cause even high quality stainless steel instruments to rust when processed in the machine. Other effects that may be noticed are tarnishing or "blueing" of instruments due to dissolved minerals in the water.

If you notice any of the above symptoms in your instruments, please contact a **Miele Applications Specialist** at:

(800) 991-9380 Extension 2426

Guide to the machine



① "On/Off" button

② "Door" button

③ Display

④ "Display" indicator

⑤ "Drying" indicator

⑥ "Start" indicator

⑦ "Start" button

⑧ "Drying" button

⑨ "Display" button
(toggles between the elapsed time,
active wash blocks and actual
temperature displays)

⑩ "Detergent" (liquid) indicator*
Optical interface for service
technician

⑪ "Rinse Aid" indicator

⑫ "Neutralizer" indicator

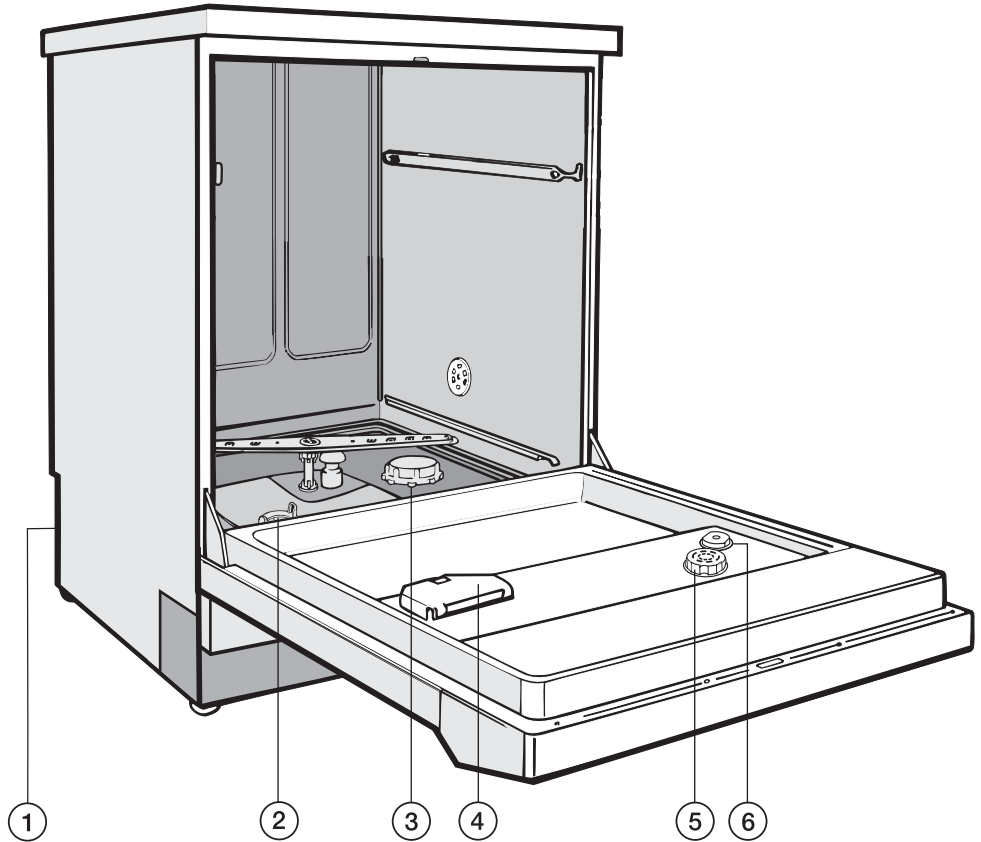
⑬ "Recharge" indicator

⑭ "Fill / Drain" indicator

⑮ Program sequence display

⑯ Program selector

* (only applies to machine fitted with
optional external DOS-Module)



① Connection for DOS module G 60
(Optional dispenser pump for
liquid detergent)

② Filter combination

③ Salt container
(for the water softener)

④ Dispenser for powder detergent

⑤ Rinse aid reservoir
(with dosage selector)

⑥ Rinse aid level indicator

Before using for the first time

Before using for the first time please pay special attention to the following points:

Detailed information on these points can be found in the relevant section of the Operating Instructions.

Set the water softener unit

The water softener unit must be set to the water hardness level in your area.

Contact your local water authority to find your hardness level, in parts per million (ppm) or grains per gallon (gr/gal).

The salt reservoir also has to be filled first **with water** and then **with reactivation salt**.

Filling the salt reservoir with cleaning agent by mistake will cause serious damage to the water softener. Please check every time before refilling that the package contains reactivation salt.

Add rinsing agent

Inadvertently filling the rinsing agent reservoir with cleaning agent (including liquid cleaning agents and dishwashing soap) will cause serious damage to the reservoir.

Only use detergents suitable for use in disinfecting washers.

Do not use detergents formulated for use in domestic dishwashers.

Load the machine carefully

Arrange the load so that water will come into contact with all the surfaces. Concealed surfaces will not be cleaned.

The spray arms must not be blocked by any items.

Adding detergent

Follow the dosage recommendations from the cleaning agent manufacturer.

The filter combination at the base of the wash cabinet and the spray arms must be clean.

Regular checking and cleaning is essential.

Opening and closing the door

Electric door lock

The machine is equipped with an electric door lock. The door can only be opened when the electrical supply to the machine is turned on, and the "On/Off" button is pressed.

To open the door

- Press the "Door" button in as far as it will go. At the same time, grip the handle and open the door.

After the first intake of water, the door remains locked and cannot be opened until the end of the program (except during the "Rinse" and "Drain" programs). The machine can be programmed to open during the "Drying" program, if desired.

Do not touch the heating elements. They remain hot for some time after the end of the program and can cause burns.

To cancel a program

If a program has to be canceled in an emergency, e.g. the program has been interrupted due to a fault, the door will have to be opened manually.

- Turn the program selector to the "Stop" (⏹) position. The program is canceled after approximately 2 seconds.


To close the door

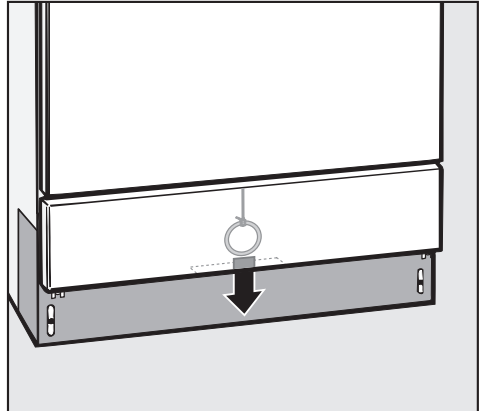
- Lift the door upwards and push it until it clicks shut. Do not press the release catch while shutting the door.

Opening and closing the door

To open the door with the emergency release

The emergency release should only be used when the door cannot be opened normally, e.g. in the event of a power failure.

- Turn the program selector to "Stop" .
- Press the "On/Off" button to turn the machine off.
- Take precaution against pressure wave release (rapid opening of the door).



- Pull the emergency release cable (located at the bottom of the machine behind the service panel) downwards to open the door.

The door latch will reset after the emergency cable has been activated.

Before using the machine for the first time, the water softener should be programmed. The water needs to be softened to avoid calcium deposit buildup on instruments and in the machine itself.

To ensure a steady supply of soft water:

1. Make sure the water softener is programmed correctly.
The softener contains settings from 1 - 60 gr/gal or 20 - 1080 ppm.
2. The salt reservoir must be filled with reactivation salt.
(If the water hardness level is below 4 gr/gal [70 ppm], the reservoir does not need to be filled.)

The machine is set at the factory for a water hardness level of 19 gr/gal (340 ppm).

Your local water authority will advise you on the water hardness in your area. If the water supply is harder or softer than the factory setting (including below 4 gr/gal or 70 ppm), the setting will need to be changed. See "Setting the water softener".

Water softener




Settings

Settings 1 - 30	gr/gal 1 - 30	ppm CaCO₃
1	1	20
2	2	40
3	3	50
4	4	70
5	5	90
6	6	110
7	7	130
8	8	140
9	9	160
10	10	180
11	11	200
12	12	220
13	13	230
14	14	250
15	15	270
16	16	290
17	17	310
18	18	320
19	19 *)	340
20	20	360
21	21	380
22	22	400
23	23	410
24	24	430
25	25	450
26	26	470
27	27	490
28	28	500
29	29	520
30	30	540





Settings 31 - 60	gr/gal 31 - 60	ppm CaCO₃
31	31	560
32	32	580
33	33	590
34	34	610
35	35	630
36	36	650
37	37	670
38	38	680
39	39	700
40	40	720
41	41	740
42	42	760
43	43	770
44	44	790
45	45	810
46	46	830
47	47	850
48	48	860
49	49	880
50	50	900
51	51	920
52	52	940
53	53	950
54	54	970
55	55	990
56	56	1010
57	57	1030
58	58	1040
59	59	1060
60	60	1080

*) factory setting

Setting the water softener

- Turn off the machine with the "On/Off" button.
- Turn the program selector to the "Stop"  position.
- Press and hold the "Start"  and "Display"  buttons **at the same time**. Turn the machine on with the "On/Off" button.

The current program status "P.." will appear in the display and the "Fill/Drain" indicator will illuminate.

- Press the "Drying"  button once. "E01" (programming level 1) will appear in the display.
- Turn the program selector one switch position clockwise (1 o'clock position).
The number "19" will appear in the display (this indicates the factory water hardness setting in gr/gal, equivalent to 340 ppm).
- Press the "Display"  button as many times as necessary, or hold it in until the required value (hardness level in gr/gal) appears in the display. Once the number "60" has been reached, the counter will begin again at "0".
- Press the "Start"  button. "SP" will appear in the display.
- Press the "Start"  button again.

The setting will now be stored in memory. The display will go out.

For future servicing, it is useful to make a note of your water hardness level.

- Enter your water hardness level here:

_____ gr/gal

or

_____ ppm

Water softener


Filling the salt reservoir

Only special, coarse-grained reactivation salt* should be used in this machine.

*Available from Miele's distributor. Please see back page for more information.

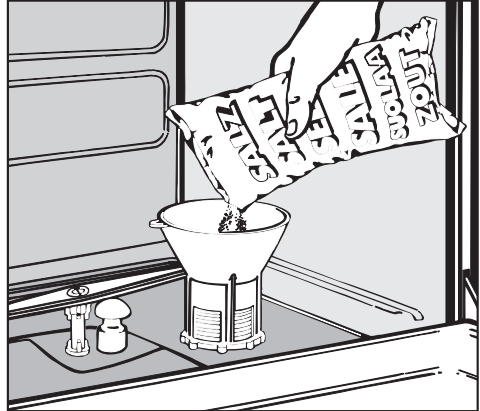
Do not use other types of salt, e.g. table salt, agricultural or gritting salt. These could contain components which are insoluble in water and could damage the water softener. If in doubt, consult Miele's Professional Department.

The salt reservoir holds approx. 2.5 kg of salt.

 Inadvertently filling the salt reservoir with cleaning agent will damage the water softener. Before filling, make sure that you are using **reactivation salt**.

- Remove the bottom basket from the machine.
- Unscrew the salt reservoir cap.

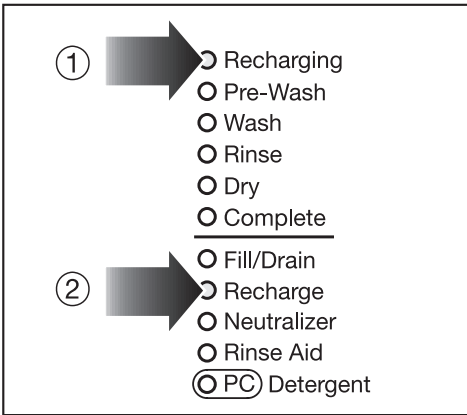
Before filling the salt reservoir with reactivation salt for the first time, fill it with approx. 2.5 liters of water.



- Place the funnel provided in place.
- Carefully fill the reservoir with salt. Displaced water will run out as it is being filled.
- Wipe any residual salt off the screw threads on the socket.
- Screw the cap on firmly.
- **Immediately after this step:** Run the "Rinse" program to remove any traces of salt from the cabinet.

Note: There may be a delay before the "Rinse" program starts due to the reactivation of the water softener.

Salt indicator



When the salt reservoir is empty, the "Recharge" indicator, ②, illuminates to remind you to fill the reservoir.

Reactivation takes place automatically during a program. The "Recharging" indicator, ①, illuminates while this is occurring.

Rinse aid

Rinse aid is necessary to ensure water does not cling to and leave marks on items during the drying phase. It also enables items to dry faster after they have been washed.

Rinse aid is poured into the storage reservoir, and a pre-set amount is dispensed automatically.

The rinse aid reservoir holds approximately 180 ml.

Inadvertently filling the rinse aid reservoir with detergent (including liquid detergent) will damage the reservoir. Be sure to use **a rinse aid which is suitable for use in disinfecting washers.**

- Recharging
- Pre-Wash
- Wash
- Rinse
- Dry
- Complete

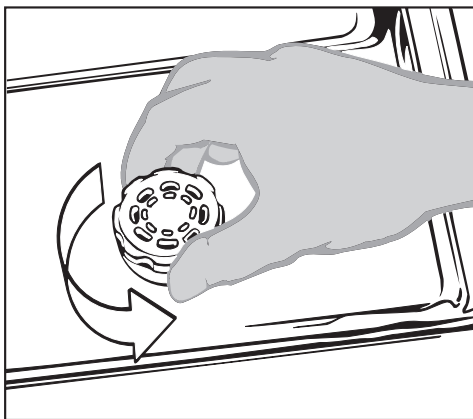
- Fill/Drain
- Recharge
- Neutralizer
- Rinse Aid
- **PC** Detergent



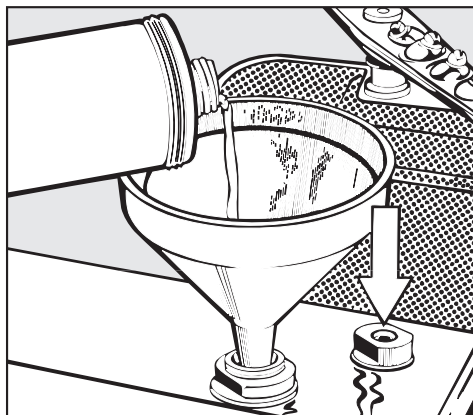
- The reservoir must be filled with rinse aid when the "Rinse aid" indicator illuminates.

There is also a level indicator for the rinse aid reservoir on the inside of the door (see illustration on the right).

- Open the door **fully**.



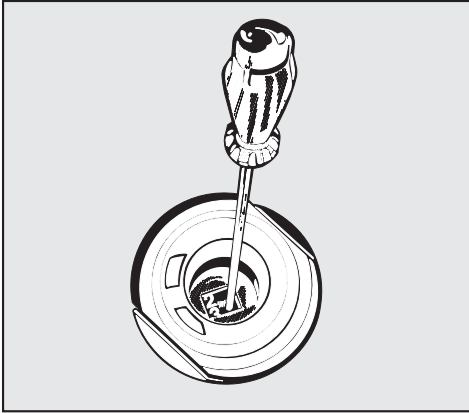
- Unscrew the cap.



- Pour rinse aid into the storage container until the level indicator is dark (see arrow in the illustration). Use a funnel if necessary.
- Screw the cap back on and wipe up any spilled rinse aid. This prevents over-foaming from occurring during the next program.
- Wait until the "Rinse aid" indicator on the control panel illuminates before adding more rinse agent.

Setting the dosage

The dosage adjuster in the opening has settings from 1 to 6 (1-6 ml). It is factory-set to 3 (3 ml).



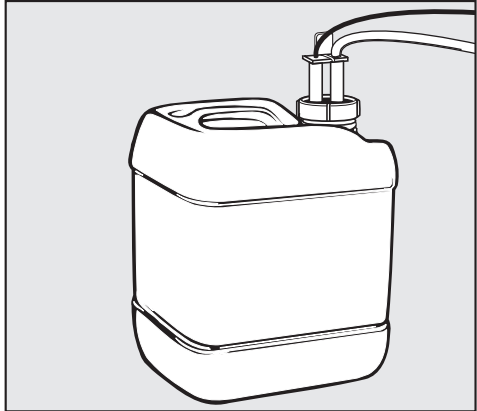
- Use a higher setting if spots are left after drying.
- If surfaces become cloudy and/or streaky, use a lower setting.

Adding neutralizing agent

Neutralizer (pH-level: acidic) neutralizes detergent residue on the surface of instruments being cleaned. It is automatically dispensed in the rinse following the wash step of a program.

To set up the Neutralizer

- Place the container of neutralizer next to the machine.



- Insert the siphon tube into the container.




- Recharging
- Pre-Wash
- Wash
- Rinse
- Dry
- Complete
- Fill/Drain
- Recharge
- Neutralizer
- Rinse Aid
- PC Detergent





Important:
Neutralizer lines must be primed before any programs can be run.

Adding neutralizing agent

Priming the neutralizer dispensing system

- Turn the program selector to the "STOP"  position.
- Turn off the machine.
- Press and hold the "Display"  and "Start"  buttons **at the same time**. Simultaneously turn the machine on with the "On/Off" button.

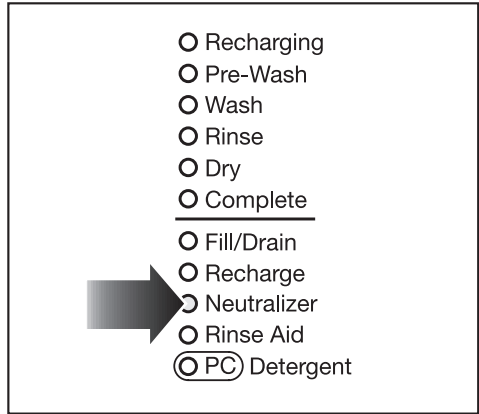
The current program status "P..." will appear in the display and the "Fill/Drain" indicator will illuminate.

- Press the "Drying"  button twice, "E02" (programming level) will appear in the display.
- Turn the program selector to the 5 o'clock position. "do3" appears in the display.
- Press "Display"  . The dispensing system will be primed automatically. "do3" will appear in the display when priming is finished.

Every time the dispensing system has been **primed**:

- Run the "Rinse" program to dilute and drain away any agents that may remain in the wash cabinet.

Refilling the neutralizing agent



When the "Neutralizer" indicator illuminates:

- Replace the current neutralizer container with a full one.
- The indicator light should go out.
- If the container has been allowed to run dry, the light will not go out until the priming process is performed.

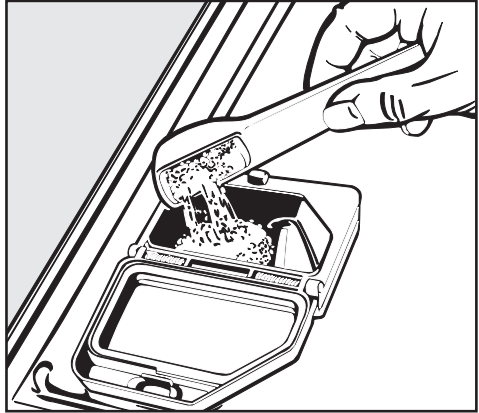
Adding detergent

Only use detergents recommended and sold by Miele for the dental disinfecter.

Detergent comes in two forms – a powder or a liquid option.

Powder Option

Powder detergent must be placed in the detergent dispenser before every program (except for the "Rinse" and "Drain" programs).



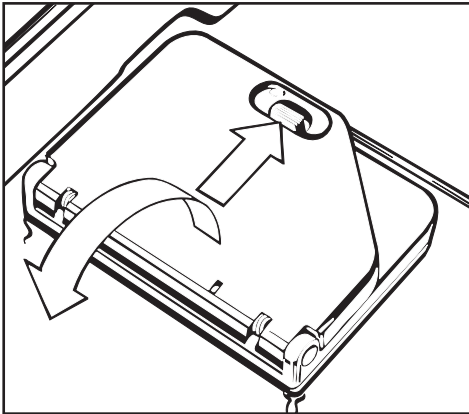
- Add powder detergent to the compartment.

Dosage

Approx. 3 g/l, or 30 g per batch (approximately $\frac{3}{4}$ of a scoop).

Approximately 10.5 liters of water are used in the wash program.

- Close the dispenser lid.



- Press the opening catch on the container (see arrow) forwards. The flap will spring open. The flap will always be open at the end of a program.

Adding detergent

Liquid Option

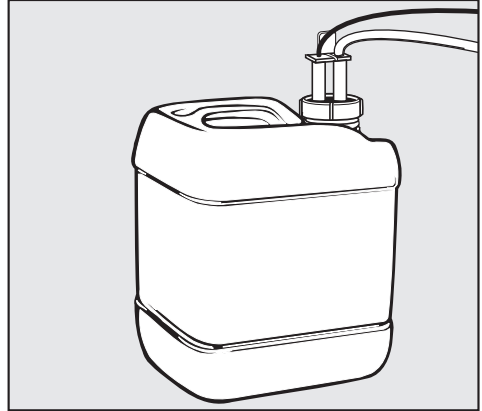
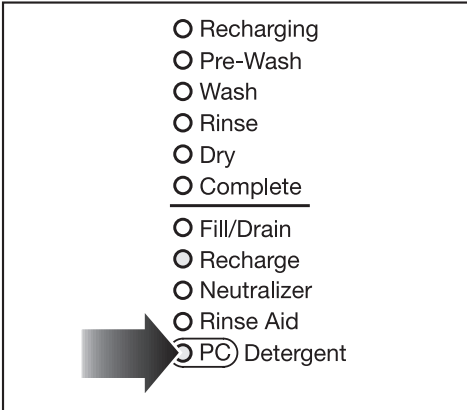
As a separate option, this machine can also be fitted with a dispenser pump for automatic liquid detergent dispensing (DOS-Module G 60). This is connected externally. Contact Miele or your authorized Miele distributor for details.

The optional DOS Module G 60 is supplied with its own installation and connection instructions.

The liquid detergent is automatically dispensed in the wash step of a program.

- Place the container of detergent next to the machine.

When the "Detergent" indicator illuminates:



- Insert the siphon tube into the container.

Important:

Detergent lines must be primed before any programs can be run.




Refilling the liquid detergent

- Replace the current detergent container with full one.
- The indicator light should go out.
- If the container has been allowed to run dry, the light will not go out until the priming process has been performed.


Adding detergent

Setting the dosage and priming the dispensing system

Selecting the programming level

- Turn the program selector to the "STOP"  position.
- Turn off the machine.
- Press and hold the "Display"  and "Start"  buttons **at the same time**. Simultaneously turn the machine on with the "On/Off" button.

The current program status "P..." will appear in the display and the "Fill/Drain" indicator will illuminate.

- Press the "Drying"  button twice, "E02" (programming level) will appear in the display.

Value set: _____


DOS 1 (liquid detergent) via the optional DOS-Module G 60

Setting the dosage

Follow the dosage recommendation of the cleaning agents manufacturer.

- Turn the program selector to "Wash". The display will show either of the following:

Display	Dosing
10	Powdered detergent from cup
0.10 - 1.00	Liquid detergent from DOS-Module G60




- To change the amount of liquid detergent dispensed, press "Display"  as many times as necessary to achieve the desired result (see chart below):

Setting	Dosage
.10	20 ml
.20	30 ml
.30	40 ml
.40	50 ml*
.50	60 ml
.60	70 ml
.70	80 ml
.80	90 ml
.90	100 ml
1.0	110 ml

* Recommended dosage for needisher™ FA

Priming the dispensing system


a) After setting the detergent dosage:

- Turn the program selector to the 1 o'clock position. "do1" appears in the display.
- Press "Display" .
The dispensing system will be primed automatically. "do1" will appear in the display when priming is finished.
- Press the "Start"  button. "SP" appears in the display.
- Press "Start"  again. The change has been recorded.

b) If **only priming** is required (e.g. the dispensing system has been allowed to become empty by mistake):

- Select programming level 2 (see "Setting the dosage - Selecting...").

Proceed as follows:

- Turn the program selector to the 1 o'clock position. "do1" appears in the display.
- Press "Display" .
The dispensing system will be primed automatically. "do1" will appear in the display when priming is finished.
- Turn the machine off with the "On/Off" button.

Every time the dispensing system has been **primed**:

- Run the "Rinse" program to dilute and drain away any agents that may remain in the wash cabinet.

Adding detergent

Maintenance of the dispensing system

To ensure trouble-free operation, the following regular maintenance should be carried out by a Miele approved service technician.

- Replace the dispensing hoses in the DOS modules **every 12-18 months**.

Take care when handling liquid agents and additives. These may contain irritant or corrosive ingredients.

Follow the manufacturer's safety instructions and relevant Health and Safety procedures carefully.

Wear protective gloves and goggles.

Loading the machine

This disinfecting washer normally requires a top and bottom basket. Various inserts and special baskets are also available for a wide variety of instruments.

Loading the machine

Preparation

- Empty all containers before loading into the machine.

Ensure that no acid or solvent residue, especially hydrochloric acid or chlorides, gets into the wash cabinet.

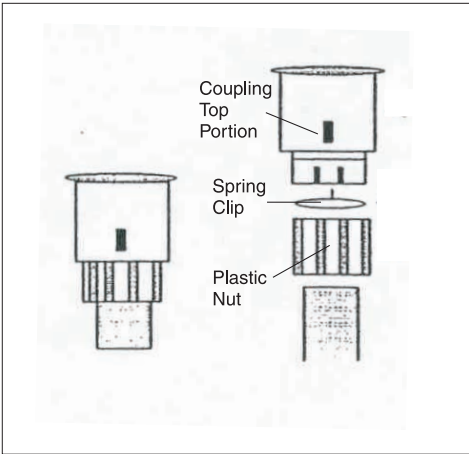
Note

- Load items so that water will come into contact with all surfaces. This ensures proper cleaning.
- Do not place items to be cleaned inside other pieces where they may be concealed.
- Hollow items should be inverted and placed in the correct inserts. The water must have unobstructed access to them.
- Deep-based items should be placed at an angle to ensure water coverage.
- Tall, narrow pieces should be placed in the center of the baskets to ensure water coverage.
- The spray arms must not be blocked by items which are too tall or hang down in their path. If necessary, manually rotate the arms to test.
- In order to avoid corrosion, it is recommended that only high-quality stainless steel instruments are cleaned in the machine.
- Nickel plated instruments and anodized aluminum instruments are not suitable for machine processing.
- Plastic items must be thermally stable.
- Single-use instruments must not be put into the machine for processing.
- As soon as the program finishes, partially open the door of the machine (by about 10 cm) for about 5 minutes before unloading. The residual heat in the machine will help achieve a good drying result and prevent instruments from corroding.
- As little dental cement or amalgam remains should be on the instruments as possible. If necessary, wipe off excess with a swab. Otherwise, manual cleaning is required after thermal disinfection.
- When loading cassettes, be sure to angle them toward the rear of the chamber, so as not to block the powder detergent cup from opening.

Loading the machine

Important

Make sure that the water connection spring adapter engages correctly when a basket or injector unit is inserted in the machine. It must be 4-5 mm higher than the water connection inlet. If it is not:



- Loosen the plastic nut.
- Push up the adapter (4-5 mm higher than the water connection inlet) and tighten the plastic nut.

Attention:

- These pages **should be pulled out** and placed near the machine, where they can be seen by all users.
- Ensure that all users are trained in the use of the machine and are familiar with the Warning and Safety instructions.

This machine complies with all relevant legal safety requirements. Incorrect use however, can lead to personal injury and damage to property.
Read the operating instructions carefully before starting to use this machine. This way you will avoid the risk of accidents and damage to the machine.
Keep these instructions in a safe place for reference, and pass them on to any future user.

Correct use

■ This machine is designed for commercial use and for specialized applications only, as described in these Operating Instructions. Alterations to the machine or using it for purposes other than those for which it was designed would be unauthorized and could cause harm. Only clean and/or disinfect instruments and utensils (dental) in this machine if the manufacturer has stated that they are suitable for machine processing. Follow the instrument manufacturer's instructions. The manufacturer cannot be held liable for damage caused by improper or incorrect use of the machine.

Please pay attention to the following notes, to maintain safe procedures.

■ The machine should only be installed by a 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.

■ Do not install the machine in an area where a danger of explosion or of freezing conditions may be present.

■ 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.

■ A damaged machine could be dangerous. Turn off at the main power immediately and call the Miele Service Department or an authorized and trained Miele Service Dealer.

■ Personnel operating the machine should be trained regularly. Children and untrained personnel must not be allowed access to the machine or its controls.

■ Take care when handling liquid agents and additives. These may contain irritant or corrosive ingredients. Do not use organic solvents as these could cause an explosion. Wear protective gloves and goggles. With all chemical agents the manufacturer's safety conditions must be observed.

■ Avoid inhalation of powder cleaners. They can cause burning in the mouth and throat if swallowed, or inhibit breathing.

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

■ Do not sit or lean on an open door. The machine could tip up and be damaged or cause an injury.

■ Be careful when loading items with sharp pointed ends. Position them in the machine so that you do not hurt yourself or create a danger when the items are unloaded.

■ When using this machine in the higher temperature ranges be especially careful not to scald or burn yourself when opening the door! Baskets and inserts must be allowed to cool down before they are unloaded. Any water remaining in containers could still be very hot. Empty them into the wash cabinet before taking them out.

■ Do not touch the heating elements if you open the door during or directly after the end of a program, you could burn yourself. They remain hot for some time after the end of the program.

■ Never clean the machine with a water hose or a high pressure hose.

■ Before any maintenance or repair work is undertaken, the machine must be disconnected from the main power supply.

■ Disinfection programs must not be interrupted, this can have a limiting effect on the disinfection result. However, should this be necessary, the complete program must be repeated.

■ Only use Miele approved cleaning agents formulated for use in washer disinfectors in this machine. Using unsuitable cleaning agents could adversely affect items being cleaned as well as components in the machine.

■ Pre-treatments with cleaning or disinfecting agents can create foam, as can certain types of soiling and rinsing agents. Foam can have an adverse effect on the disinfection and cleaning process. Manual pre-rinsing may be necessary.

■ The performance of the cycles was tested using Neodisher products. The use of other products is not discouraged but may not yield identical results. Please be aware that changes in formulation, storage conditions, etc. which may not be publicized by the chemical manufacturer can have a negative effect on cleaning results.

■ When using cleaning agents and specialized products, it is essential that the manufacturer's instructions are followed. Chemicals must only be used for the purpose they are designed for and in the situation specified, to the exclusion of other chemicals. This will avoid such dangers as chemical reactions and material damage.

■ The machine is designed **only** for operation with water and additive cleaning agents. Organic solvents must not be used in the machine. An explosion or machine corrosion could result.

■ In critical applications where very stringent requirements have to be met, it is strongly recommended that all the relevant factors for the process, such as cleaning agent, quality of water etc. are discussed with the Miele Technical Application specialists.

■ If the cleaning result is subject to particularly stringent requirements, a regular quality control test should be carried out by the user to ensure that required standards of cleanliness are being achieved.

■ The mobile units and special inserts should only be used for their specific application.

■ Empty any containers or utensils before arranging them in the machine.

■ Do not allow any remains of acids or solvents, and in particular hydrochloric acid or chloride solutions to get into the wash cabinet. Similarly avoid any materials with a corrosive effect. The presence in compounds of any solvents should be minimal, (especially those in hazard class A1).

■ Ensure that solutions or steam containing hydrochloric acid do not come into contact with the steel outer casing of the machine, to avoid any corrosion damage.

■ Please follow the advice on installation in these instructions and the separate "Installation Instructions".

Using accessories

■ Only use genuine Miele accessories with this machine. Consult Miele on the type and application of such equipment.

Disposal of your old machine

■ Before disposing of your old machine, first make it unusable. Disconnect, cut off the cable and any plug from the cable.

For environmental and safety reasons, ensure the machine is completely drained of any residual water and cleaning agent. (Observe safety regulations and wear safety goggles and gloves).

Make the door lock inoperative, so that children cannot accidentally shut themselves in. Then make appropriate arrangements for the safe disposal of the machine.

■ The manufacturer cannot be held liable for damage caused by non-compliance with these Warning and Safety instructions.

Adjusting the top basket

The top basket can be adjusted above and below the middle position by 2 cm.

Depending on the position of the top basket, the baskets can accommodate instruments of the following heights:

Example: Top basket O 190 and bottom basket U 874

Top basket position	Top basket height (cm)	Bottom basket height (cm)
Top	max. 20	max. 24
Middle	max. 22	max. 22
Bottom	max. 24	max. 20

Note:


All dimensions given without inserts.

Adjusting the top basket

- Pull out the top basket until a resistance is felt; lift from the runners and remove.
- Unscrew the protruding nuts (roller bearings) on both sides of the basket with a suitable wrench and reposition as required.

Program selection

Choose your program according to the types of instruments or utensils being cleaned and the degree of soiling.

Programs (fixed)	Program Description
Wash	Wash program without disinfection.
Rinse (cold)	Rinse only. To rinse items before a wash program, to avoid excessive foam.
Drain	For draining water out of the machine, e.g. when a program has been interrupted or the "Drain/Fill" indicator illuminates. (Turn the program selector to the "Stop"  position first).
Disinfection vario	Recommended program for protein soils such as blood and tissue. For cleaning and thermal disinfection at 93°C with 10 minutes holding time for stainless steel instruments.
Disinfection 93°C-10'	For thermal disinfection and cleaning of stainless steel instruments at 93°C with 10 minutes holding time.

Program selection

Program Sequence					
1. Pre-wash	2. Cleaning and/or thermal disinfection and/or cleaning ¹⁾	3. Interim rinse I with Neutralization	4. Interim rinse II	5. Final rinse ¹⁾ and/or disinfection	6. Drying (extra program)
X	X Cleaning 60°C/3'		X	X Rinse 65°C/1' (DI) DOS 2	(X)
		X			
X	X Cleaning 55°C/5'	X DOS 3	X	X Rinse and Disinfection 93°C/10' (DI) DOS 2	(X)
	X Disinfection 93°C/10'	X DOS 3		X Rinse 75°C/3' (DI) DOS 2	(X)

X = Sections included in a program (with temperature/temperature holding time)

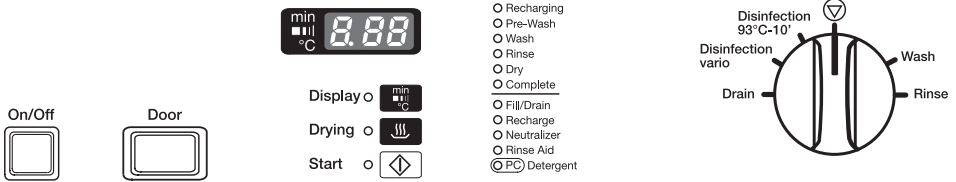
¹⁾ To change a temperature or temperature holding time, see "Programming special functions".

DOS 2 = For dispensing rinse aid

DOS 3 = For dispensing neutralizer

DI = Deionized water.

Operation



Turning on



- Close the door.
- Press the "On/Off" button.

When the program selector is in the "Stop" ⏹ position, a point lights up in the display.

Starting a program


- Turn the program selector clockwise or counterclockwise to the required program.

The temperature of the first rinse of the program selected (except for "Pre-Wash" and "Drain") is shown in the display. The "Start" indicator will flash.

- Select the "Drying"  function if required (see "Drying").
- Press the "Start"  button. The actual temperature will appear in the display.

The "Start" indicator will remain lit.


Once the program has started, all other programs are blocked. If the program selector is turned to another program, the values shown in the display will go out. The values can be seen again if the program selector is turned back to the position of the program currently in operation.

- During a program, the "Display"  button can be used to toggle between the elapsed time, the active wash block and the actual temperature.

Wash block codes

- 1 = Wash
- 2 = Rinse
- 3 = Drain
- 4 = Disinfection vario
- 5 = Disinfection 93 °C-10'

Drying



"Drying"  may be selected as an additional feature once a program has been selected (except in the "Rinse" and "Drain" programs).

Drying is phased over 10 minutes. If selected, the total running time of the program lengthens accordingly.

Changing a program


A wrongly selected program may be changed as described below.


If the "Start" button has not yet been pressed

- Turn the program selector to the required program.
- Select the "Drying"  function if required (see "Drying").
- Press the "Start"  button.

If "Start"  has already been pressed, see "Cancelling a program".

At the end of a program

- The "Complete" indicator in the program sequence display illuminates, and the "Start"  indicator will go out.
- A "0" will appear in the middle of the display. All indicators will come on and go out in sequence.
- Simultaneously, a buzzer will sound for approximately 30 seconds (standard setting). The buzzer function can be changed (see "Programming special functions").

Use the "Display"  button to view the total running time or temperature of a program.

Turning off


- Press and release the "On/Off" button.


Note:

The machine is fitted with an electric door lock. The door can only be opened if the "On/Off" button is pressed (see "Opening and closing the door").

Operation

Cancelling a program

- Turn the program selector to the "Stop"  position (the program will stop after approximately 2 seconds).
- Open the door.

 Caution: Water and items in the machine may be hot. Danger of burning or scalding.


- Arrange the load securely. Wear protective gloves when necessary, and observe appropriate health and safety regulations relating to infectious diseases.
- Replenish powder detergent, if necessary.
- Close the door.
- Select and start the "Drain" program.
- When finished with "Drain", select and restart the desired program.

Programming special functions

For future servicing, please document any alterations to the standard factory settings. Enter any alterations in the field Value set: _____.

General notes





Program selector positions that have not been allocated a function are indicated in the middle part of the display by a bar (-).

The programming level is called up via the "Stop"  position.

To program special functions

Enter the programming level of the controls first before performing special functions as follows:

1. Setting the liquid detergent dosage and priming the dispensing system

- Turn the program selector to the "Stop"  position.
- Turn off the machine.
- Press and hold "Display"  and "Start"  **at the same time.** Simultaneously, turn the machine on with the "On/Off" button. The current program status "P.." will appear in the display and the "Fill/Drain" indicator will illuminate.
- Press "Drying"  twice. "E02" (programming level) will appear in the display.

Value set: _____


1.1 DOS 1 (liquid detergent) via the optional DOS-Module G 60

1.1.1 Setting the dosage

Follow the dosage recommendation of the cleaning agents manufacturer.

- Turn the program selector to "Wash". The display will show either of the following:

Display	Dosing
10	Powdered detergent from cup
0.10 - 1.00	Liquid detergent from DOS-Module G60

- To change the amount of liquid detergent dispensed, press "Display"  as many times as necessary to achieve the desired result (see chart below):




Setting	Dosage
.10	20 ml
.20	30 ml
.30	40 ml
.40	50 ml*
.50	60 ml
.60	70 ml
.70	80 ml
.80	90 ml
.90	100 ml
1.0	110 ml

* Recommended dosage for needisher™ FA

Programming special functions

1.1.2 Priming the dispensing system


a) After setting the detergent dosage:

- Turn the program selector to the 1 o'clock position. "do1" appears in the display.
- Press "Display" .
The dispensing system will be primed automatically. "do1" will appear in the display when priming is finished.
- Press the "Start"  button. "SP" appears in the display.
- Press "Start"  again. The change has been recorded.

b) If **only priming** is required (e.g. the dispensing system has been allowed to become empty by mistake):

- Select programming level 2 (see **1.**).

Proceed as follows:

- Turn the program selector to the 1 o'clock position. "do1" appears in the display.
- Press "Display" .
The dispensing system will be primed automatically. "do1" will appear in the display when priming is finished.
- Turn the machine off with the "On/Off" button.

Every time the dispensing system has been **primed**:

- Run the "Rinse" program to dilute and drain away any agents that may remain in the wash cabinet.

Programming special functions

2. Buzzer

This special function allows you to program a buzzer (lasting up to a maximum of 30 seconds) for the following functions:

- Program end = Constant buzzer
- Fault warning = Buzzer at one second intervals
- Turn the program selector to the "Stop" (⏏) position.
- Turn off the machine.
- Press and hold "Display" (min max) and "Start" (▶) **at the same time**. Simultaneously, turn the machine on with the "On/Off" button.

The current program status "P..." will appear in the display and the "Fill/Drain" indicator will illuminate.

- Press "Drying" (🌀) four times. "E04" (programming level 4) appears in the display.

- Turn the program selector to "Rinse". A number from 20 to 27 will appear in the display:

- 20 = Buzzer switched off
- 21 = Buzzer at end of program (standard setting)
- 22 = Fault indication
- 23 = Fault indication and buzzer at end of program

- Press the "Display" (min max) button as many times as necessary, or hold it pressed in, until the desired value appears in the display.
- Press the "Start" (▶) button. "SP" appears in the display.
- Press "Start" (▶) again. The change has been recorded.

Value set: _____.


Turning the buzzer off

The buzzer can be turned off early by:

- Turning the program selector to the "Stop" (⏏) position.
- Pressing the "Display" (min max) button.
- Interrupting the power supply (e.g. by opening and closing the door).

Machine care

Filter combination

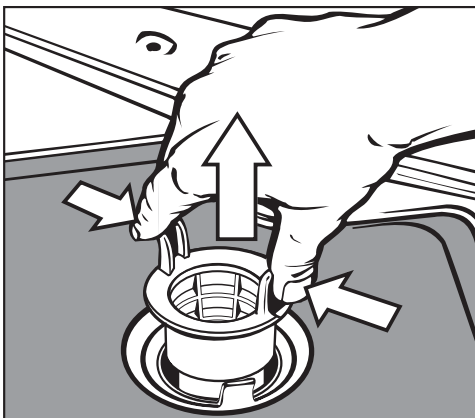
 The machine must not be used without all the filters in place. The filters protect the circulation pump from damage caused by foreign objects.

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

Caution!

Watch out for sharp objects which could cause injury.

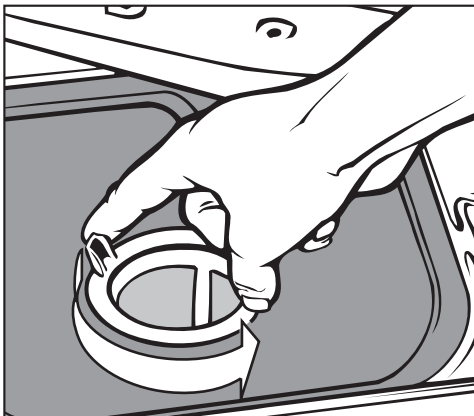
Cleaning the coarse filter



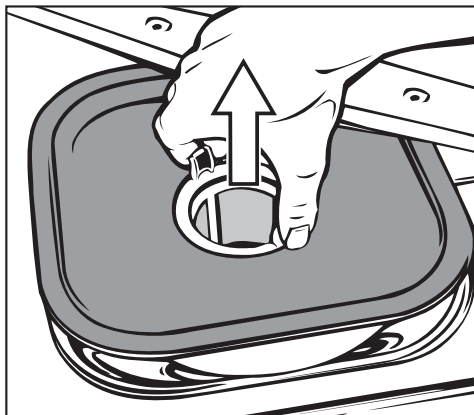
- Press the two tabs together. Remove and clean the coarse filter.
- Put the clean filter back in position and press until it clicks in place.

Cleaning the fine, flat and micro-fine filters

- Remove the coarse filter.
- Remove the fine filter (if fitted) from between the flat and the micro-fine filters.



- To unscrew the micro-fine filter, grasp the two tabs and turn counter-clockwise twice.



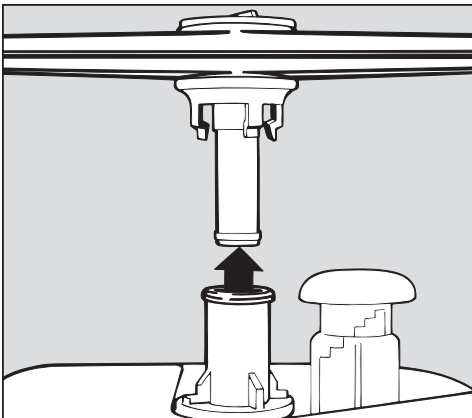
- Remove both filters together.
- Clean the filters.
- Replace the filter combination in reverse order. The flat filter must lie flat in the base of the wash cabinet.

Cleaning the spray arms

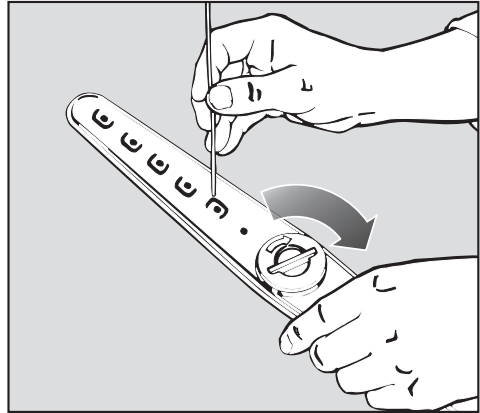
From time to time, particles may become trapped in the spray arm jets. The spray arms should be inspected and cleaned every 4 - 6 months.

Remove the spray arms as follows:

- Unscrew the **upper** spray arm.
- Unscrew the **middle** spray arm (under the upper basket) clockwise **at the protruding nut**.



- Remove the **lower** basket. Pull the lower spray arm firmly upwards to remove.
- Use a sharp pointed object to push particles into the spray arm jets and rinse thoroughly under running water.



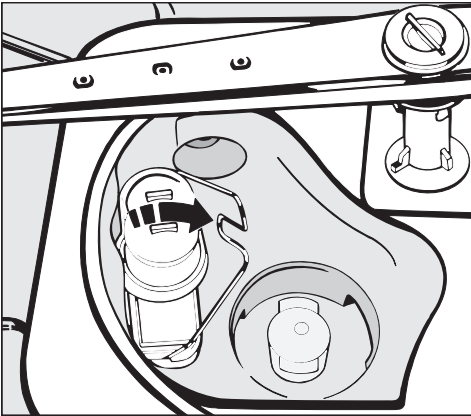
- Open the cap of the **lower** spray arm, by turning it clockwise, to rinse out particles.
- After cleaning, close the cap tightly.
- After replacing the spray arms, check that they rotate freely.

Machine care

Cleaning the non-return valve and drain pump

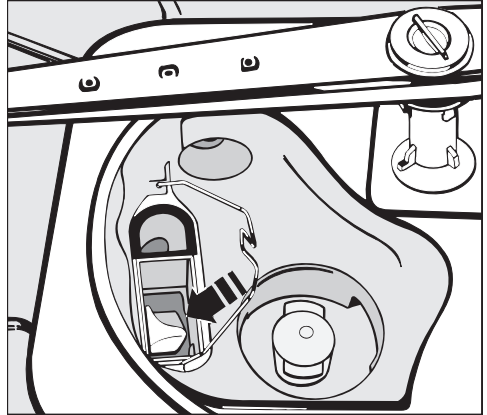
If water has not been pumped away at the end of a program, the drain pump or the non-return valve may be blocked.

- Turn off the washer.
- Remove the filter combination from the wash cabinet.



- Tilt the locking clamp to the side.
- Pull out the non-return valve and rinse under running water.

The drain pump is located beneath the non-return valve (see arrow).




- Before returning the non-return valve, check that the drain pump is not blocked. Spin the propeller several times in both directions to check for obstructions.
- Carefully refit the non-return valve and secure it with the locking clamp. Refit and lock the filter in place.

For safety reasons the load should be washed again.

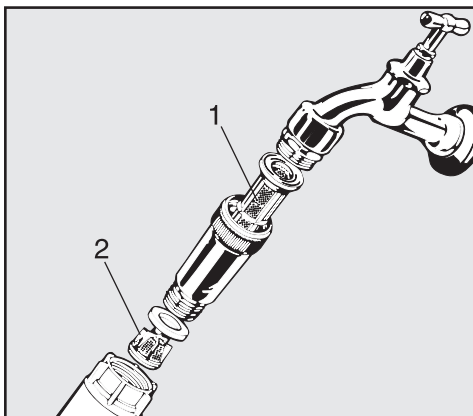
Cleaning the filters in the water inlet

Filters are incorporated in the screw connection of the water inlet hose to protect the water inlet valve. If these filters become dirty, they need to be cleaned, otherwise insufficient water flows into the wash cabinet.

 The plastic housing of the water connection contains an electrical component. It must not be submerged in water.

To clean the filters

- Disconnect the machine from the main electrical supply.
- Turn off the water supply.
- Unscrew the water inlet hose.




- Clean the large area filter, **1**, and fine filter, **2**, replace with new filters, if necessary.

- Replace filters and the seal. Make sure they are sitting correctly.
- Reconnect the hose to the water inlet, making sure that it goes back on straight.
- Open the water tap carefully. If there is a leak, tighten the connections.


Cleaning the control panel

- The control panel should only be cleaned with a damp cloth or a suitable cleaner for use on plastic materials.

 Do not use abrasive cleaners, glass cleaners or all-purpose cleaners! They **will** damage the control panel.

Cleaning the front of the machine

- Use a cleaner suitable for the type of material the machine front is fitted with.

 Do not use cleaning agents containing ammonia or thinners.

Correcting minor faults

Before contacting the Miele service department, please read the following troubleshooting steps.

Any work on the electrical components of the machine should only be carried out by a qualified technician in accordance with local and national safety regulations. Unauthorized repairs could be dangerous.

Faults / possible causes

The machine does not start

- The door is not properly closed.
- The plug is not properly inserted into the socket.
- The fuse is defective or has blown.

A few minutes after turning on, the "Fill/Drain" indicator flashes (fault code "F..E" appears in the display)

- Turn the program selector to the "Stop" (⏹) position (the fault code goes out).
- Turn the machine off (press "On/Off").
- The water supply may be interrupted. Check to see that the water supply is turned on and flowing.
- The filters in the water inlet hose are dirty. Check and clean, if necessary.
- The water pressure is too low. Contact the Miele Service Department.

The wash cycle finishes too early and the "Fill/Drain" indicator flashes (fault code "F A" appears in the display)

- Turn the program selector to the "Stop" (⏹) position (the fault code goes out).
- Turn the machine off (press "On/Off").
- The drain hose is kinked. Straighten the hose and check / clean the drain pump.
- The drain pump is blocked. Turn the machine on again, drain the water and restart the program.

The "PC/Detergent" indicator is illuminated

- The optional DOS- Module G60 is being used. The liquid detergent container must be refilled.

The "Neutralizer" indicator is illuminated

- The neutralizer container must be refilled.

The display shows two dashes

- Call for technical assistance. The machine is stalled and cannot be operated until it is reset by a technician.

Unsatisfactory cleaning results

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

- Run the machine within six hours of loading, even if it is partially loaded.
- Check the dosage of the detergent and adjust. Too little or too much detergent may deteriorate cleaning results.
- Rearrange the load to be cleaned so that the spray arms can rotate freely.
- Check if anything obstructs the powdered detergent dispenser flap.

The water in the wash cabinet is not heated or the program sequence lasts too long (fault code "F01-F03, F18, F19" appears in the display)

The 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.
- Remove the service panel.
- Press the blue "Reset" button on the temperature limiter.

If this switch trips repeatedly, contact the Miele Technical Service Department.

After sales service

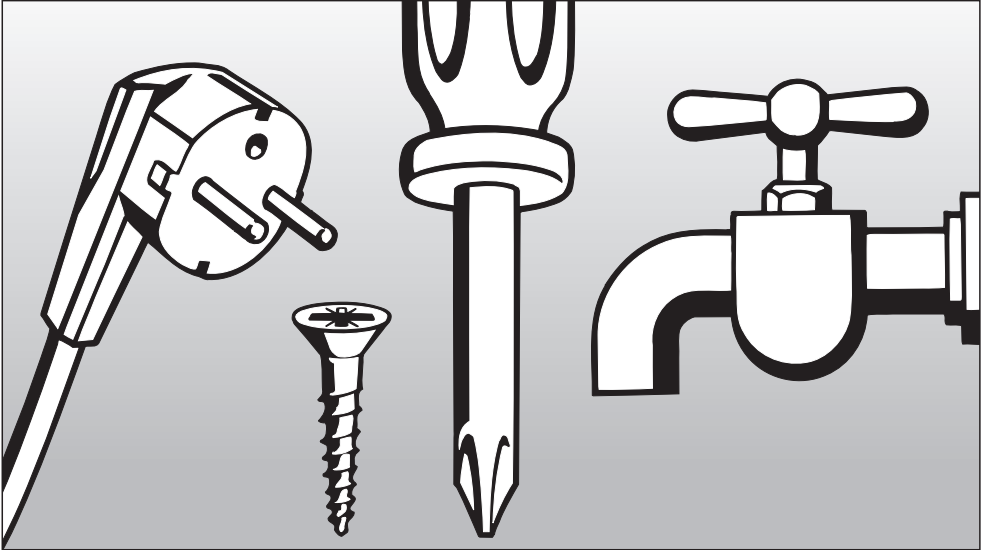
Important

When a fault occurs, please check that the fault has not been caused by incorrect operation. This will help avoid an unnecessary service call.

- Turn the program selector to the "Stop" (⏻) position (the fault code will go out).
- Turn the machine off.
- Restart the machine and reselect the program.

If you still have difficulty or if a fault code "F.." appears in the display, please contact your authorized Service Dealer or the Miele Service Department. See back cover for addresses.

Please quote the fault code as well as the model type and serial number of your machine, which is given on the data plate inside the door (see "Electrical connection").



INSTALLATION INSTRUCTIONS

Caring for the environment

Disposal of the packing material

The protective packing materials are environmentally safe and can be recycled.


Ensure that any plastic wrappings, bags, etc. are disposed of safely and kept out of the reach of children.
Danger of suffocation!

Disposal of the appliance

Appliances contain materials which can be recycled. Please contact your local authorities about recycling in your area.

Ensure that the machine presents no danger to children while being stored for disposal. See Important Safety Instructions.

Please refer to the installation diagram supplied with the machine.

 Furniture and fittings installed near the machine must be of a commercial standard (able to withstand the effects of steam).

Installation options

- **Free-standing**
- **Undercounter**

The machine can be installed under a continuous counter or sink drain. The recess must be at least 60 cm wide, 60 cm deep and 82 cm high.

Positioning and securing the machine

To ensure stability, the machine must be aligned and screwed to the counter.

- Open the door.
- Secure the machine to the front edge of the worktop using the screws to the left and right of the front trim.
- When not mounted undercounter, floor mounting brackets must be used.

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

Steam Deflector (protects the countertop)

Depending on the requirements for an undercounter installation, a steam deflector can be ordered from the Miele Technical Service Department.

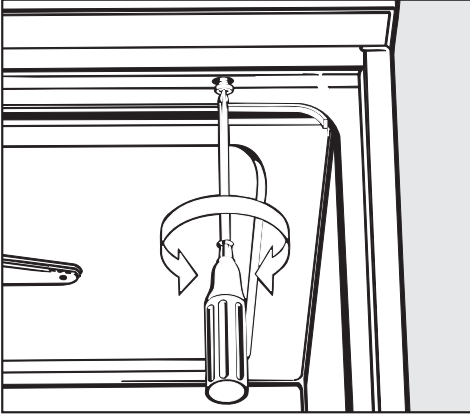
The underside of the Countertop is protected from steam damage by a stainless steel plate.

Installation

Removing the lid (if necessary)

If necessary, remove the lid from the machine to make installation possible.


- Open the door.



- Remove the fixing screws on the left and right sides using a phillipshead screwdriver.
- Pull the machine lid approx. 5 mm forwards, lift it upwards and remove.

Important for machines with steam condenser (depending on model)

- To prevent countertop damage by steam, the supplied self adhesive protective foil (25 x 58 cm) must be placed underneath the countertop near the steam condenser.

 All electrical work must be performed by a qualified person in accordance with local and national safety regulations.

The machine comes equipped for connection to a 208 V, 60 Hz, 1 phase power supply. It is equipped with a 6 ft. long, 10/3 AWG power cord, without a plug. It must be hardwired into an electrical junction box that has been installed on the wall or in a cabinet adjacent to the machine. It should be connected to the main power supply.

Voltage: 208 V, 1 phase

Frequency: 60 Hz

Rated Load: 6 kW

Circuit breaker: 2 x 30 A

Black: connect to L1 (hot)

White: connect to L2 (hot)

Green: connect to GND (ground)

- Connection should be made via a suitable isolator, with an "On/Off" button easily accessible for service work.
- A damaged power cord must only be replaced with a genuine Miele cord by a Miele service technician.

WARNING THIS APPLIANCE MUST BE GROUNDED

Grounding connection

- The ground lead must be connected to the screw connection point (marked with the ground symbol \downarrow) at the back of the machine.

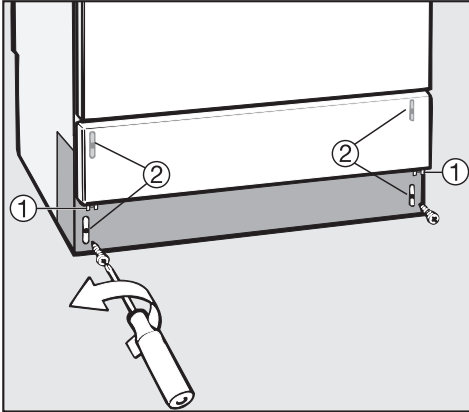
The machine must only be operated with the voltage, frequency and fusing shown on the **data plate** located on the rear of the machine, and on the plinth (behind the service panel).

The **conversion diagram** and the **wiring diagram** is secured to the inner side of the service panel.

Electrical connection

Removing the service panel

Disconnect the machine from the main electrical supply.




- Remove the fixing screws, ①, from the service panel.
- Hold the service panel at both sides and pull upwards.
- Unscrew the facing, ②. Remove the plastic protective cap.
- See the supplied installation diagram.

Re-assembling the service panel


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

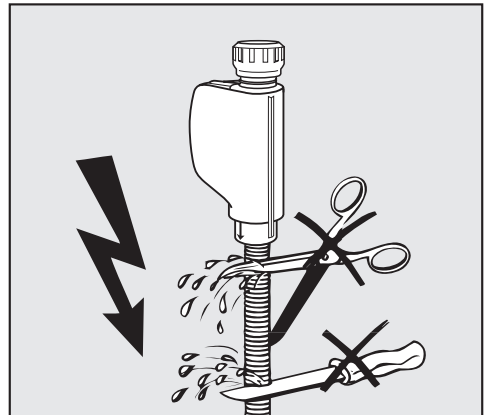
Connection to the water inlet

 Water in the machine is not suitable for drinking.

- For technical application reasons, the machine is supplied as standard for connection to **cold water only**. The inlet hoses (water inlet and steam condenser) must only be connected to the cold water inlets. See also "DI water connection" (hose marked H₂O pur).
- The machine must be connected to the water supply in accordance with local and national regulations.
- Acceptable water pressure (flow rate): 10 - 147 psi
Recommended water pressure (flow rate): 25-60 psi
- If the water pressure is not in the range listed above, the "Fill/Drain" indicator may come on and the fault code "F.E" will appear in the display. If this occurs, contact the Miele Technical Service Department for advice.
- Connections with a 3/4" GHT male thread are to be provided on site. They should be easily accessible so that the water supply can be turned off when the machine is not in use.

- All inlet hoses are approx. 5 ft. (1.5 m) long, ending with a 3/4 inch GHT female thread. Under no circumstances should the inlet filters be removed.
- Large surface area filters are enclosed with the machine for installing between the inlet and the inlet hose. (see "Machine care - Cleaning the filters in the water inlet").

 The inlet hose must **not** be shortened or damaged in any way (see illustration).



- See the supplied installation diagram.

Plumbing

DI water connection (available as an optional accessory)

As an option the machine can be supplied for connection to a DI water supply of:

Acceptable water pressure

(flow rate): 10 - 147 psi

Recommended water pressure

(flow rate): 25-60 psi

- The DI pressure-tested hose (marked "H₂O pur") with a $\frac{3}{4}$ " (19 mm) GHT female hose thread must be connected onsite to the DI inlet for purified water.

If the machine has a DI water connection which is not going to be used, the electronics will need to be reprogrammed by a Miele technician. The inlet hose will remain on the rear of the machine.

Drainage

- The drainage system is fitted with a non-return valve which prevents dirty water from flowing back into the machine via the drain hose.
- The machine should preferably be connected to a **separate** drainage system onsite.
If separate drainage is not available contact your Miele application specialist for advice.
The onsite drain connection point should be located between 1 ft. (0.3 m) and 3 ft. (1 m) **above the lower edge of the machine.**
If it is lower than 1 ft. (0.3 m), lay the hose in a curve at a height of at least 1 ft. (0.3 m).
The drainage system must be able to take a minimum drainage flow of 16 l/min.
- The drain hose is approx. 5 ft. (1.4 m) long, is flexible and has an internal diameter of $\frac{7}{8}$ in. (22 mm). It must not be shortened. Hose clamps are supplied for securing it in position.
- A longer drain hose (up to 12 ft. [4 m] long) is available to order from the Miele Technical Service Department.
- The drainage system must not exceed 12 ft. (4 meters).
- See the supplied installation diagram.

Technical data

	English	Metric
Height:	33 ⁷ / ₁₆ " (32 ⁵ / ₁₆ ")	85 (82) cm
Width:	23 ⁵ / ₈ "	60 cm
Depth:	23 ⁵ / ₈ "	60 cm
Voltage:	208 V 60 HZ 1 Phase	
Rated load:	6 KW	
Power cord	approx. 5' 11"	1.8 m
Cold Water Connection:		
Acceptable water pressure (flow rate)	10 - 147 psi	.7 - 10 bar
Recommended water pressure (flow rate)	25 - 60 psi	1.72 - 4.13 bar
DI Water Connection:		
Acceptable water pressure (flow rate)	10 - 147 psi	.7 - 10 bar
Recommended water pressure (flow rate)	25 - 60 psi	1.72 - 4.13 bar
Delivery head:	min. 12" max. 39 ³ / ₈ "	0.3 m 1 m
Drainage length:	max. 13' 1"	4 m
Water intake hose	approx. 5' 7"	1.7 m
Drain hose:	approx. 4' 7"	1.4 m
Noise level in dB (A):		
Sound pressure level LpA		
Free stand unit	<70	
Built under:	<70	
Test marks:	CSA	
CE mark:	MPG-Guidelines 93/42/EWG, Class IIa	

Miele

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