# Míele

# Operating Instructions for Compact Disinfector G 7735 CD



## CARING FOR THE ENVIRONMENT

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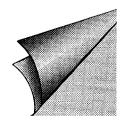




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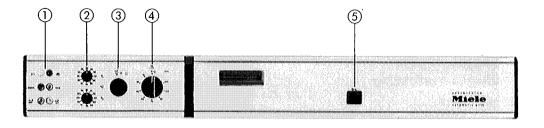
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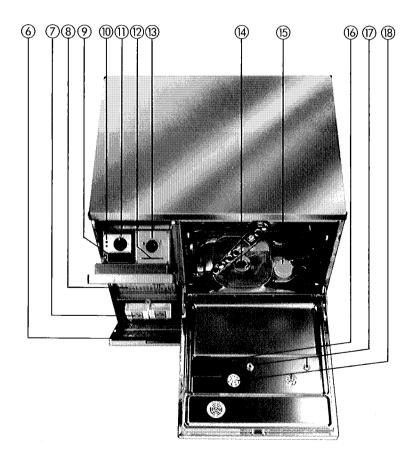
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## Guide to the machine

## Programme card control



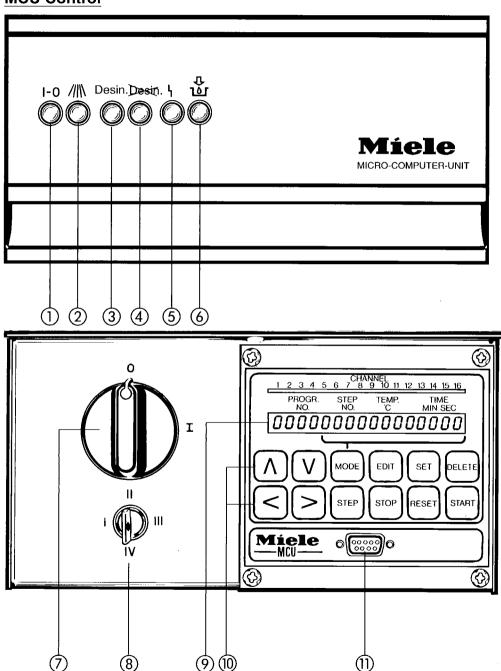


## Guide to the machine

- 1 Control lights
- 2 Temperature selector
- 3 Reactivate softener switch
- 4 Selector switch for drying time (only with drying unit TA)
- 5 Door release
- 6 Service panel
- 7 Storage containers for dispenser pumps
- 8 Drying unit TA
- 9 Compartment for storing programme cards
- 10 Switch for dispenser pumps
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- 12 Slot for programme cards
- 13 Start button
- 14 Filter combination
- 15 Reactivation socket for salt container (water softener)
- 16 Dispenser for <u>powder</u> detergent or other powder additives
- 17 Level indicator
- 18 Storage containers for <u>liquid</u> additives

## Guide to the machine

## **MCU Control**



b

## Guide to the machine

- 1 "On-off" indicator light
- 2 "In operation" indicator light
- 3 "Desin" indicator light (thermally or chemically disinfected)
- 4 "Desin" indicator light (not disinfected)
- 5 "Fault-Error" indicator light
- 6 "DOS dispenser level" indicator light
- 7 Main switch
- 8 Key switch
- 9 Display field
- 10 Control keying-in pad
- 11 Serial interface

## Warning and Safety instructions

This machine conforms to current safety requirements. Inappropriate use can however 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 future reference.

This machine is designed for commercial use and for specialised applications only, as described in the operating instructions. Using it for purposes other than those for which it was designed can be dangerous and cause harm.

The machine should only be commissioned and serviced by the MIELE service department, an authorised Miele service dealer, or other suitably competent agent.

Do not install the machine in areas where there may be the danger of explosion present.

The electrical safety of this appliance can only be guaranteed when continuity is complete between the appliance and an effective earthing system which complies with local and national regulations.

It is most important that this basic safety requirement is regularly tested by a qualified electrician.

The manufacturer can not be held responsible for the consequences of an inadequate earthing system.

Do not let children or untrained personnel access the machine or its controls.

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

The standard of disinfection in the Disinfection programmes must be confirmed by the user as a routine matter. The process should be regularly checked using chemical indicators, and bacteriologically at intervals using bioindicators, with full documentation.

Proceed according to local health authority regulations.

The disinfection programme for thermal disinfection, (DESIN 93° C-3') with 3 minutes holding time is only suitable for prophylaxis against infection for specifically defined cases.

With regard to the programme (CHEM-DESIN 60° C-10 mins), responsibility for the use of the chemothermal process rests with the user. The range of effective disinfection is based on claims made by the producer of the disinfecting agent, and does not represent any official standard of disinfection.

Disinfection programmes must not be interrupted, as this can have a limiting effect on the disinfection result. However, should this be necessary, the complete programme must be repeated.

## Warning and Safety instructions

- Theatre (OP) shoes should only be cleaned and disinfected in a machine installed solely for this purpose.
- Any repair work may only be carried out by a suitably qualified and competent engineer, authorised by Miele. Repairs by unqualified persons could be dangerous for the user.
- The machine must be isolated from the electricty supply before any maintenance work is carried out. Either switch off at the wall switch isolator, or withdraw the mains fuse.
- The water in this machine must not be used as drinking water.
- Before connecting the appliance, check that the voltage and frequency of the electrical supply correspond with the details on the data plate of the machine.
- Only use low-foaming detergents and disinfecting agents which have been approved by Miele. Foam can have an adverse effect on the disinfection and cleaning process.
- On no account use solvents in your machine as there may be a danger of explosion, as well as damaging rubber and plastic components.
- Take care when handling liquids such as detergents, wetting, disinfecting and neutralising agents. These may contain acids, or alkalis. Follow the instructions and the relevant safety procedures on the packaging carefully and wear protective gloves and goggles.
- Avoid inhalation of powder cleaners.

- Do not load into the wash cabinet utensils with more than a trace of acid or solvent residue, especially hydrochloric acid or chloride solutions. 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 acid salts do not come into contact with the steel outer casing of the machine, to avoid any corrosion damage.
- Be careful when sorting instruments with sharp pointed ends and positioning them in the machine that you do not hurt yourself or create danger for other operators. If necessary, place the pointed end downwards with the handles pointing upwards.
- Use special inserts in accordance with the instructions provided.
- When using the machine at high temperatures of 70 95° C be especially careful not to scald yourself. Baskets and inserts must first be allowed to cool. Any water which may have collected in incorrectly loaded items will be very hot and must be emptied into the wash cabinet.
- At the end of the approx 95° C drying cycle with the TA drying unit, first open the door and wait, to allow the wash load and inserts to cool down. Do not touch the heating elements during or directly after the end of a programme. You could burn yourself. Do not hose down the machine or the surrounding area to clean it.

## Warning and Safety instructions

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

The only accessories to be used with the machine must be those supplied or approved by MIELE for the specific application. Consult your Miele Sales or Service Dept for advice.

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

The manufacturer can not be held responsible for any damage caused through improper use.

In countries where there are areas which may be subject to infestation by cockroaches or other vermin, pay particular attention to keeping the appliance and its surroundings in a clean condition at all times. Any damage which may be caused by cockroaches or other vermin will not be covered by the appliance guarantee.

## Description of the machine

The Compact Disinfector is an automatic cleaning and disinfecting machine with the following range of applications:

AN = for anaesthetists' equipment

LG = for laboratory glassware

OP = for surgical instruments

EN = for rigid endoscopes

BC = for baby bottles

OS = for theatre shoes

The disinfector can alternatively be operated with built-in TA and/or steam condenser DK. In case of a built in drying unit TA **without** a steam condenser DK ventilation must be provided in the rear of the wash cabinet (see "Plumbing"). See separate instructions for the drying unit.

Machines with the MCU control are equipped ex-works with a drying unit (TA) and steam condenser (DK).

The disinfector operates on the "fresh water circulation system" developed by Miele and is hygenic and safe against bacteria.

Thermal disinfection takes place at 93-95° C with corresponding lengths of time to comply with ranges of effectiveness.

If required, chemical-thermal disinfection can be achieved at 60° C by adding a chemical disinfectant. The machine must be fitted with a special programme card if it is a programme card controlled machine.

#### Available at extra cost:

- Machine lid DE-C
- Built-under unit UE-C 90, W 900/D 600/H 300 mm
- Drying unit TA (standard with MCU control)
- Steam condenser DK (standard with MCU control)

## Using the machine

The applications of the Compact Disinfector vary greatly in the preparation of items by disinfection and simultaneous cleaning.

The disinfector can be supplied with various baskets, inserts, automatic dispensers and appropriate programme cards or programmes, depending on the applications of the machine.

By selecting the appropriate version of the machine and the correct programme, the items will be cleaned hygenically and be free of bacteria at the end of the programme.

Consequently a special cleaning programme is required for every individual application.

The disinfector is therefore fitted with a programme card control, or the MCU (micro-computer unit) control which enables individual programmes to be compiled.

Programme cards "Regenerieren" (reactivate) and "Funktion" (function) are supplied with the machine, (only for machines operated by programme card).

Should the type of soiling change, for example, the machine is required to carry out other applications, then, in co-operation with the Miele Service Department, different programmes can be devised, or appropriate programme cards provided.

## **Programme card control**

#### "Reactivate softener" switch

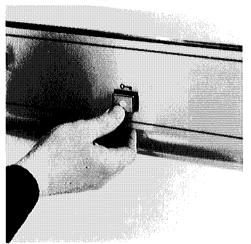
Before using the machine for the first time the "Regenerate" (reactivate softener) switch in the control panel must be set for local water hardness. After each reactivation cycle the switch must be re-set (see "Reactivating the water softener").

## **MCU** control

Before using the machine for the first time the "Regenerate" (reactivate softener) setting must be set by the Miele Customer Service Engineer according to the local water hardness level (see "MCU operating and programming manual").

Your local water authority will advise you of the water hardness level in your area.

#### Opening the door



Press the door release button and, at the same time, grasp the grip rail and pull the door downwards to a horizontal position.

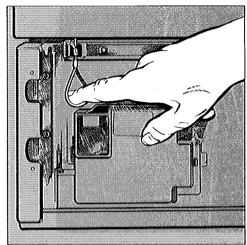
# If the machine has an electromagnetic door lock, it can only be opened if

- The machine is connected to the mains supply.
- The On/Off switch is in the "on" position.
- The "Start Knob" is set to the (ON) symbol. (only with programme card control).

A programme card does not need to be inserted in the slot.

# In the event of a power failure, the door can be opened as follows:

■ Holding the service panel at the top right and left hand corners, pull up out of the retainers and lift out at the bottom (see "Installation").



- Pull the release cable.
- Press the door release button and open the door.

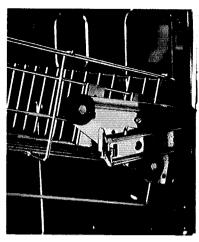
# Load the utensils into their respective baskets and inserts.

See pages 14-22 for details on loading for different applications of the machine.

## Removing the top basket

The top basket should be removed from the wash cabinet when using special application mobile units. e.g. pipette insert or direct injection spraying insert etc.

## Loading and unloading



Pull the basket forward to the stop position, lift it up at the front and lift out of the wash cabinet.

## **Important**

When pushing a mobile unit or an injector into the machine make sure its spring adapter for water connection engages correctly. It must be 4-5 mm higher than the water connection inlet in the roof of the cabinet.

If it is not, adjust the adapter accordingly.

- Loosen the lock ring.
- Push up the adapter until it sits firmly, (4-5 mm higher than the water connection inlet), and re-tighten the lock ring.

Select baskets and inserts which are appropriate for the application.

See the suggestions on the following pages for various applications.

## Loading the machine (LG)

#### Application: LG

Laboratory glassware

The programme cycle is approx. 25 minutes.

If glassware is then to be dried, thermostat T2 must be set to 80° C (programme card control machines only).

The machine can be supplied with two baskets (top and bottom). Depending on the type and shape of the laboratory glassware, the baskets can accommodate a large variety of special inserts. The diversity of the inserts is so great that we cannot illustrate them all here or give detailed instructions on their use

With the aid of a few examples, advice on just the basic preparation and loading of the glassware is given on the following pages.

## Removing soils

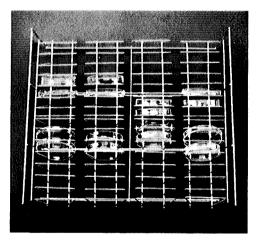
Empty all glassware before loading the machine. Take any hygiene measures necessary against infection.

No acid or solvent residues (especially hydrochloric acid and chloride) must get into the wash cabinet.

- Remove culture medium from petri dishes.
- Remove all blood clots and residue from test tubes.
- Remove all stoppers, corks, labels, sealing wax residues, etc.

## Loading

- Hollow vessels, such as beakers, measuring cylinders, flasks, etc, should be inverted and placed in the correct inserts. A cover net can be used to reduce the risk of breakage.
- Petri dishes and similar should be placed int the correct insert with the soiled side facing the centre.



#### E 136-06 Insert 1/1 for 56 100 mm Petri dishes

When using direct injection spraying inserts for narrow-necked flasks, butyrometers, pipettes, etc., remove both the top and bottom baskets from the wash cabinet.

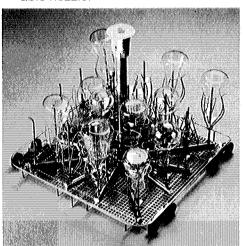
Place the required insert on the inner door panel, for ease of loading. Then slide it into the wash cabinet.

## Loading the machine (LG)

## Narrow-necked flasks, measuring flasks etc.

The insert is fitted with spray nozzles in 2 different lengths.

Place the inverted flasks on a suitable nozzle.



E 350-06 Injector mobile unit 1/1 with 33 nozzles and clips alternative: E 380-06 with connection for TA

# Drying unit.

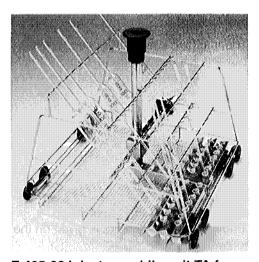
- Adjust the height of the plastic wings on the nozzles so that the glass does not block the openings on the nozzle.
- The nozzles are provided with threaded unions and are therefore interchangeable.

## **Pipettes**

Pipettes can be cleaned in various inserts:

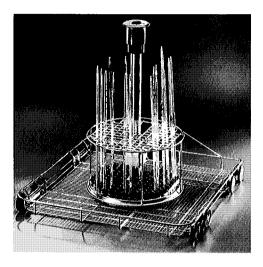
#### Pipette mobile unit

- Place the pipettes in the unit with the mouthpieces facing upwards.
- Push the mobile unit into the wash cabinet.



E 405-06 Injector mobile unit TA for 38 pipettes alternative: E 404-06 without connection for TA Drying unit.

## Loading the machine (LG)



E 408-06 Injector mobile unit TA for 106 pipettes up to 450 mm alternative: E 406-06 without connection for TA Drying unit

## Pipette holder

When the pipette holder E 332 is to be used to clean pipettes, the lower spray arm must be taken out.

- Loosen the knurled nut.
- Take out the spray arm.
- Push the pointed edge of the pipettes into the rubber grommets.
- Blank off the unused nozzles with caps.
- Position the pipette holder horizontally on the spray arm socket, so that it is securely locked into place.

#### Add detergent

When the pipette holder is being used, if liquid detergent is not being dispensed via DOS 15/30 or DOS 60/30:

 add powder detergent to the inside of the door panel on the right, (see "Adding detergent").

## Loading the machine (OP)

## **Surgical instruments**

Where heavy protein and blood soiling is being removed the machine should only be connected to a cold water supply.

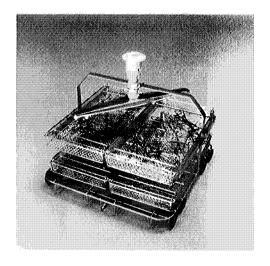
The disinfector can be supplied with an OP mobile unit and 4 mesh trays.

Only instruments (e.g. chrome nickel steel) that are stated to be suitable for machine cleaning and disinfecting should be cleaned in the machine.

The rinse temperatures (T2) should not exceed 70° C.

Where there are more than 240 mg chloride per litre (corresponds to approx. 400 mg NaCI = sodium chloride), it is recommended that the rinse cycles be carried out with de-ionised water (aqua purificata).

The instruments should be removed immediately on completion of the programme.



# E 327-06 OP mobile unit 1/1, in 2 levels for e.g. 4 mesh trays E 142-06

Spread out the instruments in the mesh trays.

Hinged instruments, e.g. scissors, forceps, etc. should be opened before loading.

The carrying handles of the mesh trays must be folded inwards.

## Add detergent

If the DOS 15/30 or DOS 60/30 is not used for injecting detergent:

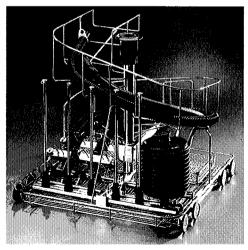
■ Pour powder detergent on to the right-hand side of the inner door panel (see "Adding detergent").

#### Anaesthetic equipment

We recommend connection to a cold water supply for AN application.

The disinfector can be fitted with various anaesthetic mobile units, depending on the application.

- When using the thermal disinfection function, only items resistant to temperatures of 95° C should be cleaned in the machine.
- The disinfector can also be used for thermo-chemical disinfection at approx. 60° C. With programme card control machines the corresponding programme card must be used. To establish the effectiveness of chemical disinfecting agents for chemo-thermal disinfection consult the manufacturer.
- .Load the mobile unit as shown in the illustration below:



E 435-06 AN universal mobile unit TA for general AN instruments

# Exercise caution when unloading the equipment

- Drain hot water out of the breathing tubes into the wash cabinet.
- If the amount of water exceeds 30-50 ml there is a danger of suds contamination.
- In certain cases a final rinse with demineralized water is recommended e.g. if the mains water is very hard.
   In such cases consult Miele Service.
- Do not withdraw the mobile unit by pulling on the jets for the respirator bags.

#### Add detergent

If the DOS 15/30 or DOS 60/30 is not used for injecting detergent:

Pour powder detergent on to the right-hand side of the inner door panel (see "Adding detergent").

## Loading the machine (EN)

#### "Rigid endoscopes" EN

Endoscopes must be dismantled for cleaning according to the manufacturer's instructions. Caps and seals have to be removed and taps have to be opened to allow the channels to be thoroughly washed.

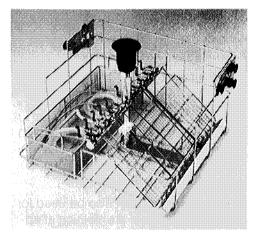
Endoscopes must be thoroughly washed inside and out.

Endoscopic instruments up to a total length of 50 cm can be prepared in Miele Disinfecting and Cleaning machines. This machine is not suitable for optical systems, fibre optic cables. In case of doubt guidance should be sought from the instrument manufacturer.

## Add detergent

If DOS 15/30 or DOS 60/30 is not used for injecting detergent:

Pour powder detergent on to the right-hand side of the inner door panel (see "Adding detergent").



O 176-06 upper basket/injector TA for endoscopes

14 nozzles/funnels for parts of rigid endoscopes up to 50 cm long; 10 nozzles for intubation or suction parts; loosely laid out in mesh basket E 379.

## **Application: BC**

Baby bottle containers

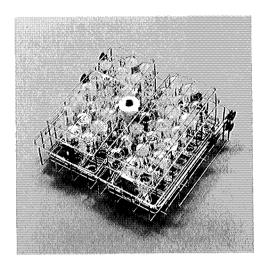
The machine can be equipped with 2 basic baskets for 4 baby bottle containers. Each container takes 19 x 250 ml baby bottles.

To load the baby bottles, first remove the containers from the baskets.

- Only use bottles with a machine washable level marker.
- After use, fill the bottles with water to prevent food residues from drying on.

#### Loading

- Empty the bottles before placing them into the container.
- Put the container lid in place over the bottles and secure.
- Place the containers in the baskets with bottle necks pointing downwards, unused corners of containers on the outside.



O 166-06 upper basket with 2 E 135-06 inserts 1/2 cont. for 19 baby bottles 250 ml.

#### Add detergent

If not dispensing via DOS 15/30 or DOS 60/30:

■ Pour powder detergent on to the right-hand side of the inner door panel (see "Adding detergent").

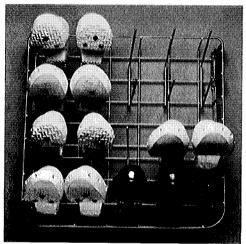
## Loading the machine (OS)

## **Application: OS**

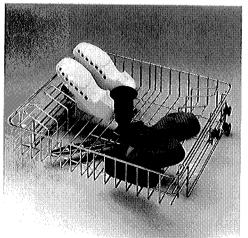
"Special polyurethane operating theatre shoes".

The Chemo-thermal programme at 60° C is used for disinfecting.

To establish the effectiveness of chemical disinfecting agents for chemothermal disinfection consult the manufacturer.



U 168-06 lower basket for 20 OP shoes



O 173-06 upper basket for 8 OP shoes

In this machine, 28 special polyurethane theatre shoes without insoles can be cleaned and chemo-thermally disinfected in one batch.

## Loading

- Place 20 shoes in the lower basket U 168.
- Place 8 shoes in the upper basket O 173
- Alternatively, the upper basket O 167-06 can be used for 28 removable OP shoe insoles.

## Add detergent

- Pour powder detergent on to the right-hand side of the inner door panel (see "Adding detergent").
- Dispense a chemical disinfecting agent via DOS 15/30 or DOS 60/30.

## Please note

OP-shoes may only be cleaned in a machine installed specifically for the purpose.

## Adding detergent

This automatic cleaning and disinfecting machine is fitted with 4 automatic dispensers:

- Automatic detergent dispenser in the door for powder additives, e.g. detergent.
- Dual automatic liquid dispenser in the door for liquid additives.

The amount dispensed can be set between 2-12 ml

- DOS 10/30 injector pump for dispensing acid additives.
- DOS 15/30 injector pump for dispensing liquid detergent or disinfecting agents.

Machines with MCU control are equipped with a DOS 60/30 injector pump.

These dispensers are used for dispensing the appropriate additives, depending on the application of the machine.

## Adding powder detergent

Application LG (without pipette insert), OS and for programmes with pre-wash.

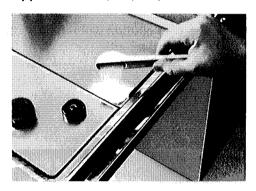
Powder detergent is poured into the automatic dispenser in the door.



■ Use the measure supplied (one level measure full holds approx. 15 g) to fill the dispenser. Approx. 30-45 grammes detergent required per load (approx. 2-3 measures).

Close the lid of the detergent dispenser. The detergent will be dispensed automatically at the correct time during the programme.

#### Application AN, OP, BC, EN



For programmes <u>without</u> pre-wash add the detergent to the inside of the door panel (see instructions on relevant "Applications" pages).

For dispensing <u>liquid</u> detergent or disinfectant, the machine is fitted with the DOS 15/30 or DOS 60/30 injector pump as standard. Please follow the instructions on "Adding detergent" pages, (dispenser pumps).

## Adding detergent

# Filling the automatic liquid dispensers in the door

There are two automatic liquid dispensers built into the machine with a joint total capacity of approx. 400 ml.

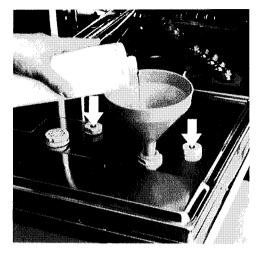
These dispensers can be used for liquid additives such as anti-foaming, organic or inorganic neutralising agents.

**Important!** Both dispensers must be filled with the same additive.

## ACID! Exercise caution when handling neutralising agent!



Undo the screw caps on both containers.



- Fill the storage containers with liquid additive – use funnel if necessary – and watch the level indicators (see arrows in illustration below).
- The storage containers are full when dark colouring covers the whole surface of the level indicators.
- Replace and tighten the screw caps firmly.

Any spilt liquid detergent should be diluted with water and carefully wiped up.

When there is no dark colouring in either of the level indicators, refill the storage container which it monitors.



Full

<u>A</u>



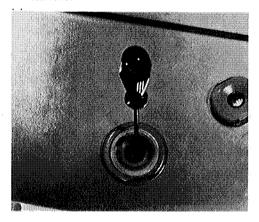
Almost empty

Empty, refill!

# Setting the amount dispensed for liquid additives

The amount dispensed can be adjusted between 2-12 ml, depending on the application of the machine.

Undo the screw caps on both containers.



- The dispenser adjuster can be seen at the bottom of the opening.
- Use a small screwdriver to move the dispenser adjuster in the required direction. The amount indicated in each dispenser should add up to the total amount required.

**Example:** If 7 ml liquid additive is to be dispensed, set one of the dispenser adjusters to 4 ml and the other to 3 ml.

Replace the screw caps.

# Preparing DOS 10/30 and DOS 15/30 or DOS 60/30 injector pumps

All versions of the Disinfector are fitted with the following injector pumps for liquid additives:

- the DOS 10/30 injector pump for dispensing neutralising agent, or instrument lubricant. The amount dispensed is 10 ml/30 sec.
- the DOS 15/30 or DOS 60/30 pump for dispensing liquid detergent or disinfectant. The amount dispensed is 15 ml/30 sec with the DOS 15/30 pump and max 60 ml/30 sec with the DOS 60/30 pump.

The Miele Customer Service Engineer will set the machine to the required setting when commissioning the machine.

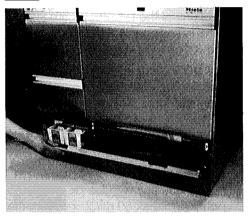
The additives are poured into 1.5 litre plastic containers, which are either marked DOS 10, DOS 15 or DOS 60.

# Exercise caution when handling liquid additives

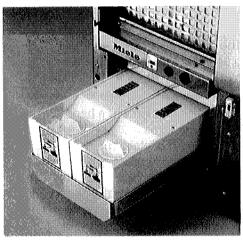
These can contain irritant or corrosive ingredients, e.g. acid, concentrated detergent or disinfectants. Take care to ensure the necessary safety precautions are observed. Wear protective goggles and gloves.

## Adding detergent

# Filling the containers with liquid additive



Hold the service panel at each side and pull up out of its retainer clips and remove.

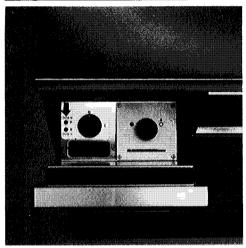


- Pull out the drawer with the containers.
- Remove the cap of the container.
- Using a funnel, fill the container with the required liquid additive.
- Put the cap back on to the containers. Push the drawer back into place.

Close the service panel.

When the containers are full, the "DOS" indicator light goes out.

## **Programme card control**



If only one container is to be filled, the switch for the empty DOS 10 or DOS 15 container (next to the mains switch) must be set to "0", otherwise the "DOS" indicator will light up continuously.

## **MCU** control

Both containers for liquid cleaning agents must be filled as otherwise the DOS level indicator light  $t_{\infty}^{*}$  will stay on.

If an occasion should arise where only one container is filled, then the Miele Customer Service Engineer should remove the plug for the empty container.

The containers must not be allowed to empty completely and should be topped up regularly.

## Venting the dispensing systems

Before using the machine for the first time, the air has to be expelled from the dispensing system.

This should also be done if the container is not refilled in time and the dispensing system is allowed to empty completely.

## Programme card control

To expel the air, use the programme card:

#### - Function -

0: ABPUMPEN/ETT (Drain)

[] 20: DOS-B

△ 40: DOS 10-D

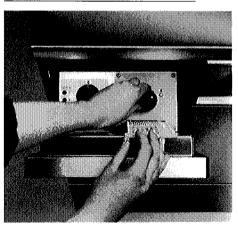
☐ 60: DOS 15-0

## Closing the door

■ To close the door, bring up and push until the lock catches.

The door release button should not be pressed when closing the door, as the lock will not catch and the machine cannot be switched on.

## To switch on the disinfector



Insert programme card into the slot.

To expel the air from the DOS 10/30 injector pump: insert card as far as position No.  $\triangle$  40.

To expel the air from the DOS 15/30 injector pump: insert card as far as position No.  $\square$  60.

- Turn the main switch to "I".
- Turn the start knob anti-clockwise to the 
   (On) symbol.

The cycle proceeds automatically and ends when the ///\\ indicator light goes out.

#### Then:

- Turn the start knob to the O (Off) symbol.
- Withdraw the programme card.

## **MCU** control

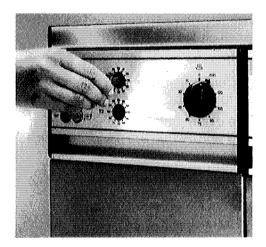
- Close the door.
- Set the key switch to position "II".
- Turn the main switch to "I".
- Select programme 14 (DOS-FUELL) using the cursor pads V or Λ (14 DOS-FILL / DOS-FUELL) appears in the display field.
- Press the START touch pad.

## Selecting wash temperatures

## Programme card control

#### Selecting the temperature

The temperatures required for cleaning and disinfecting the load are selected on the thermostats T1 and T2.



Insert the key provided and turn the white marker to the temperature required, shown on the programme card.

For chemo-thermal disinfection, set T2 to max. 60° C.

## **Important**

Machines with electro-magnetic door lock: <u>one</u> of the thermostats must be set to a temperature of at least 95° C, otherwise the door cannot be opened on completion of the programme. This prevents any non-disinfected items from being taken out of the disinfector. If this happens, the programme should be repeated at a higher temperature.

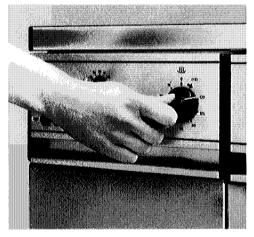
## Selecting drying time and drying temperature

(For appliances with TA Drying Unit only):

## Programme card control

#### Selecting the drying time

Items can be dried on completion of the programme with a delay time of between 5 and 120 minutes in the desinfector, if allowed for on the programme card.



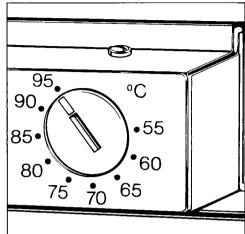
Turn the Time selector in the direction of the arrow to a suitable time. Experience will determine the length of time required to achieve a satisfactory drying of the load.

## Selecting the drying temperature

The drying temperature is set using the temperature selector for the (TA) Drying Unit.

To do this:

Take off the service panel (see "Electrical Connection").



- Check the setting of the TA temperature selector. The temperature can be freely set between 55° C and 95° C and is electronically controlled.
- approx. 95° C (max. temperature) for normal items (set ex-works),
- approx. 70° C for items with parts made of rubber, latex or plastics, with a specified temperature tolerance
- approx 55° C for items which are particularly heat-sensitive.

Please use the key supplied to switch over.

**Note:** Articles such as anaesthetic equipment can be quickly dried by hot air in approx. 45 mins, when the final rinse temperature T2 reaches approx. 85° C and the TA Drying unit is set at 95° C.

## Altering the temperatures and drying time (MCU)

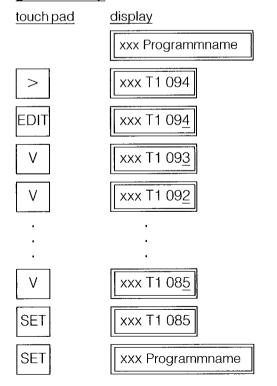
## **MCU** control

The temperatures for disinfection, cleaning and drying, as well as drying times are stored for the relevant programmes, (see programme summary supplied).

To change the stored values, proceed as follows:

- Turn the key switch to setting "II".
- Turn the main switch to "I".
- Select the programme (see "Switching on").

# Altering temperature T1, from 94° C to 85° C (example), (except programmes 1-4).



#### **Important**

With programmes 1-4 temperature T1 can not be changed from 94° C.

## Altering the T2 temperature

Start by pressing the touch pad > twice, then proceed as for temperature T1.

#### Note:

Header parameters, which have not been programmed in, do not appear in the display.

## Altering the temperatures and drying time (MCU)

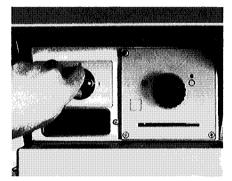
#### Altering the TA drying temperature Altering the ZA drying time from 30 from 90° C to 80° C (example). mins to 40 mins (example). touch pad display touch pad display xxx Programmname xxx Programmname xxx T1 094 xxx T1 094 > xxx T2 070 xxx T2 070 >> xxx TA 090 xxx TA 090 **EDIT** xxx TA 090 xxx ZA 030 > xxx TA 090 EDIT xxx ZA 030 <080 AT xxx xxx ZA 031 ٨ **SET** 080 AT xxx xxx ZA 032 Λ SET xxx Programmname If DK AUTOMATIC has been selected xxx ZA 040 Λ (see Operating and Programming Manual) and the drying time ZA set to "0", the steam condensing step in the **SET** xxx ZA 040 Miele standard programmes is normally skipped. **SET** xxx Programmname Menu point DK AUTOMATIC can be used to make best use of site condi-= number sequence flashes tions for steam condensation, (see also xxx = programme number selected Operating and Programming Manual).

## Operation

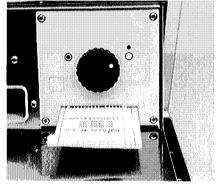
Open the stopcocks

## Programme card control

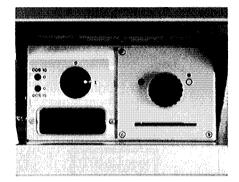
#### Switching on



■ Turn the main switch to "I".



■ Insert the programme card – studs facing upwards – into the slot until it stops. The start knob must be turned to the O (Off) symbol.



Turn the start knob to the ● (On) symbol.
 The ///\ldot\ "in operation" indicator light comes on and indicator that the management of the comes on and indicator that the management of the comes on and indicator that the management of the comes on and indicator that the management of the comes of the com

the ///\\"in operation" indicator light comes on and indicates that the machine is in operation.

## Programme sequence

The programme proceeds automatically once it has been started and finishes when the ////\/\\ "in operation" indicator light goes out.

The indicator light Desin comes on when the disinfection temperature has been reached and held for at least 10 minutes in the cleaning and disinfecting programme stage.

The requirement for thermal disinfection of the load is for one of the two thermostats to be set to minimum temperature of 95° C and that the programme is not interrupted.

**The indicator light Dos** comes on when the containers for liquid additives need filling (see "Adding liquid detergent").

The indicator light \$\mathref{\omega}\$ comes on when the water softener built into the machine is depleted and cannot deliver sufficient soft water.

The softener then needs to be reactivated with salt and the regeneration timer reset (see "Reactivating the water softener"). The light goes out once reactivation has taken place.

The indicator light ## comes on when de-ionised water (aqua purificata) has flowed into the wash cabinet.

The programme card must have been appropriately punched.

## Operation

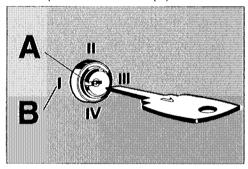
## **MCU** control

#### Key switch

The following choices can be selected with the four position key switch:

- I = fixed programme (key can be removed)
- II = free programme selection
- III = programming (see operating and programming manual)
- IV = service mode (see operating and programming manual).

The slit in the keyhole (A) points to the switch position selected (B).



Three keys are supplied, numbered separately 1, 2 and 3:

Key 1 for switch settings I, II Key 2 for switch settings I, II, III Key 3 for switch settings I, II, III, IV

## Switching on

- 1. Free programme selection
- Key switch setting II.
- Turn main switch to I.
- Select programm with cursor keys V or Λ:

- 1 BGA
- 2 AD-BGA
- 3 OP-IP-BGA
- 4 OPIPAD-BGA
- 5 LABOR-KURZ
- 6 LABKURZ-AD
- 7 CHEM, DES.
- 8 CHM. DES.OS
- 9 THERM-DES.
- 10 TH-DES-AD
- 11 DES-VAR-TD
- 11 SPEZIAL-85 (for Australia only)
- 12 GROBFILTER \*)
- 13 FEINFILTER \*)
- 14 DOS-FILL (DOS-FUELL)
- 15 REGENERATE (REGENERIER)
- \*) Only visible when using switch setting III or IV

For detailed information on the programmes see the "programme summary" supplied.

The relevant programme description appears in the display field.

■ Press the Start touch pad.

If the preselected programme is subsequently required as a <u>fixed programme</u> it can be stored:

■ Turn the key switch again to position "I".

The key should then be withdrawn.

- 2. Switching on a fixed programme
- Key switch to position "I".
- Turn main switch to "1".

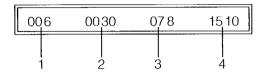
The pre-selected programme appears in the display field.

■ Press the "Start" touch pad.
The "///\\ in operation" indicator light comes on to show that the machine is running a programme.

## Note:

If several programmes are required as <u>fixed programmes</u>, i.e. switchable with key switch setting I, consult the Programming Manual, under PROG-SELECTION.

The programme parameters can be read off the display without activating any further functions:



- Programme number
- 2. Current programme step
- 3. Current temperature
- 4. Time of step in mins and secs, (fixed time)

Touch the pad for "MODE" function to see what the current programme segment is, or the Codetext, (prewash, clean/disinfect, interim rinse, final (last) rinse, drying).

#### Programme sequence

After being started the programme proceeds automatically, it is finished when the "//|\\\\\\ in operation" light goes out.

The "Desin" indicator light comes on at the end of the programme if the thermal disinfection of the load has been completed successfully, (or chemical disinfection has been completed successfully, where applicable).

The "Desta" indicator light comes on at the end of every programme, and in the "DESIN" programme if thermal or chemical disinfection (as selected) was not completed successfully.

Should the machine be equipped with electro-thermal door locking, the operator will be unable to access the load.

The "\ Fault-Error indicator light" comes on if the system has been sub-

jected to an interruption during operation. The cause of the interruption is shown in the display field as an error message. The following error messages are possible:

**ERR DOOR** 

(unauthorised opening of the door as programme proceeded)

**ERR INFLOW** 

(Water does not flow in freely, stopcock may be shut, etc)

**ERR DRAIN** 

(Water does not drain away freely, drain hose may be kinked, etc)

**ERR DOS-PUMP** 

(Chemical disinfecting agent has not been dispensed)

ERR PF + DISIN

(Power cut in Desin-Programmes > 2"). The programme is interrupted.

**ERR TEMP** 

(Temperature not reached)

Call Miele Service Dept, or if appropriate increase ALARM-DELAYW value under SERVICEMODE/CONTROL-

LER-PAR.

**ERR T-SENSOR** 

(defective sensor)

Call Miele Service Dept.

**ERR PUMP-PRG** 

(Programming fault: several dispenser pumps were programmed in simultaneously in one programme step).

**ERR KEY** 

(Defective key switch)

Call Miele Service Dept.

**ERR WATER-PRG** 

Programming fault: more than one water inlet valve was programmed into one programme step, or one inlet valve was not programmed in combination with the circulation pump or drain pump.

## Operation

#### **ERR WATERINF**

Water inflow time insufficient. Programme in ADD-WATER or increase ADD-WATER value, if already programmed in.

#### **ERR BATTERY**

Change the lithium battery within 4 weeks of this message appearing.

- Remedy the fault, (see Operating and Programming Manual notes).
- Start the programme again.

#### IMPORTANT

With the additional message "DRAIN START" in disinfection programmes:

- Key switch position "II".
- Contaminated water must first of all be discharged.

# The door can be opened to do this.

- Press the "Start" touch pad, (the water will be pumped away).
- Start the programme again.

The L<sup>\*</sup> (DOS level) indicator lights up when the containers for liquid agent need to be refilled.

When the following **operating messages** appear in the display, the appropriate action must be taken:

PREFILTER (Coarse filter)
Change the coarse filter in the TA
drying unit, (see "Drying unit (TA) –
Cleaning and Care").

- Reset the filter change display:
- Turn the key switch to position III or IV.

- Use Cursor key V or Λ to select programme 12 (GROBFILTER) (= PREFILTER TA) (Coarse filter).
- Press the Start button.

#### S-FILTER

Call the Miele Service Dept to change the particle filter in the TA drying unit and to reset the change filter message.

#### REGENERATE

Replenish the water softener with salt (see "Reactivate water softener").

DESIN (DISIN) THER Load is thermally disinfected.

DESIN (DISIN) CHEM Load is chemically disinfected.

## Interrupting a programme

Once a programme has been started, it should only be interrupted in an emergency, e.g. if the items are moving about noisily due to incorrect loading.

The machine must then be switched off, the water drained from the wash cabinet and the programme re-started.

## Programme card control

■ Turn the start knob to the "OFF" position (O symbol) and withdraw the programme card.

### Draining

- Insert the programme card marked "FUNKTION" until resistance is felt, (to position 0-ABPUMPEN-ETT).
- Turn the start knob to the "ON" position (● symbol).

The water is drained off after one minute.

Then switch off the machine (turn start knob to the  $\stackrel{\bullet}{\circ}$  symbol) and withdraw the "Function" programme card.

Machines with electro-magnetic door lock: after the programme card has been withdrawn, turn the start knob to the "ON" position (• symbol) otherwise the door cannot be opened.

- Open the door and rearrange the load securely and correctly.
- If required, refill the powder detergent dispenser in the door, or add powder detergent where appropriate.

### Switching on

- Close the door, insert the programme card.
- Turn the start knob to the "ON" position (⑤ symbol) and the programme will recommence from the beginning.

## Interrupting a programme

### **MCU Control**

- Turn the main switch to "0".
- Wait for 5 seconds, then turn the main switch to "I".
- 1. Disinfection programmes
- "DRAIN START" and "ERR PF + DISIN" are displayed alternately.
- Key switch position "II".
- Contaminated water must first of all be discharged.

## The door can be opened to do this.

- Press the "Start" touch pad.
- "DRAIN" displays, (the water will be pumped away).
- "ERR PF + DISIN" displays
- Open the door and arrange the instruments properly, (if necessary ensure safety regulations are met, and wear protective gloves).
- Add powder detergent if necessary.
- Shut the door.
- Press the "Start" touch pad, (programme starts from the beginning again).

## 2. All programmes **except** disinfection programmes

- "DRAIN" is displayed if there is water in the machine (the water is then pumped away).
- or the programme parameter shows with flashing step time (no water in the machine).
- Key switch position "II".

- Press the "RESET" touch pad.
- Open the door and arrange the instruments properly.
- Refill the powder detergent dispenser in the door if necessary.
- Shut the door.
- Start the programme again.

On completion of the programme the ///\\"ON" indicator light goes out, then:

## Programme card control

■ Turn the start knob to the "OFF" position (O symbol), withdraw the programme card. If the machine is to be used straight away for the same programme, re-insert the programme card in the slot to the stop position.

If the machine is not to be used again:

- Turn the mains switch to "0"; the machine is disconnected from the mains supply.
- Turn off the stopcocks (water supply).

## **MCU** control

If the machine is not to be used again:

- Turn the mains switch to "0"; the machine is disconnected from the mains supply.
- Turn off the stopcocks (water supply).

## Reactivating the water softener

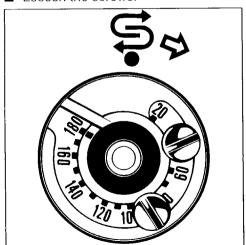
## Programme card control

### Set the reactivate softener switch

When using the machine for the first time the reactivation switch in the control panel must be turned to the appropriate setting for the water hardness. (see table)

Setting on the dial	°dH	mmol/i	°fH	° eH	ppm CaCO₃
180	6	1.07	10.7	7.5	107
170	7	1.25	12.5	8.8	125
160	8	1.42	14.3	10.0	143
150	9	1.60	16.0	11.3	160
140	10	1.78	17.9	12.5	179
130	11	1.96	19.6	13.8	196
120	12	2.14	21.4	15.0	214
110	13	2.31	23.2	16.3	232
100	15	2.67	26.8	18.8	268
90	17	3.03	30.4	21.3	304
80	19	3.38	33.9	23.8	339
70	22	3.92	39.3	27.5	393
60	24	4.27	42.8	30.0	428
50	28	4.98	50.0	35.0	500
40	32	5.70	57.1	40.0	571
30	38	6.76	67.8	47.6	678
20	48	8.54	85.7	60.1	857
10	71	12.64	126.7	88.9	1267

- Pull off the cover knob.
- Loosen the screws.



■ Turn the adjuster ring with the yellow point to the correct setting (if necessary reposition the fixing screws).

- Tighten the screws.
- Put the cover knob back on.
- Use a coin to turn the reactivation switch clockwise until it is checked.
- The disinfector is now ready for use.

### MCU control

Before using the machine for the first time the "REGENERATE" setting to activate the water softener must be set by the Miele Customer Service Engineer according to the local water hardness level (see "Operating and programme manual"). Your local water authority will advise you of the water hardness level in your area.

## Reactivating the water softener Programme card control

When after a number of wash cycles the sindicator lights up and the reactivation (regeneration) switch has counted down back to the start position, the built-in water softener is depleted and cannot supply any more soft water; it must therefore be reactivated with salt immediately the programme has ended. If, for operational reasons, this is not possible and if further wash programmes have already taken place, the water softener must be reactivated

## **MCU** control

twice in succession.

When, after a number of wash cycles, the message "REGENERATE" appears in the display the built-in water softener is depleted and cannot supply any more soft water. It must therefore be reactivated with salt <u>immediately</u> the programme has ended.

40

## Reactivating the water softener

If this cannot be done immediately, and further batches have been washed, then the reactivation process must be carried out twice in succession.

## Programme card control and MCU control

## For each reactivation programme you will need:

- 2 kg special reactivation salt with granules approx. 1-4 mm.
- The plastic salt container supplied as standard equipment with the machine.

#### Please note

If only finer granular reactivation salt is available, please consult the Miele Customer Service Department.

Reactivation salt with granules larger than 4 mm must not be used.

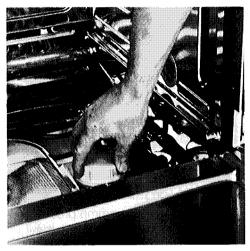
#### To fill the salt container



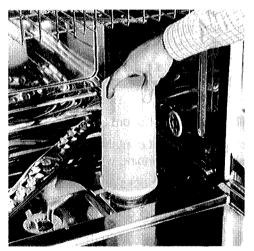
- Unscrew and remove the filter insert from the salt container.
- Fill the salt container with granular salt and replace the filter insert.

### To insert the salt container

Remove the bottom basket from the wash cabinet.



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 stopcocks (water supply).41

## Reactivating the water softener

## Programme card control

- Turn the main switch to "I".
- Insert the "Regenerieren" ("Reactivate") programme card in the slot to the stop position.
- Turn the start knob to the 
   (ON) symbol.

## **MCU** control

Select programme 15 "REGENERIER" (Reactivate). See "Operation" section.

## Programme card control and MCU control

The reactivation programme proceeds automatically and finishes when the "/||\" indicator light goes out.

### Then:

- Switch off the machine.
   Open the door and remove the salt container
- Replace the plastic cap on the socket at the bottom of the wash cabinet.
- Replace the bottom basket.
- Rinse the salt container and filter insert under running water.
- Turn off stopcocks (water supply).

## Programme card control

Once the reactivation has been carried out, always use a coin to turn the reactivation switch clockwise until it meets resistance.

### Important note

The water pressure (flow pressure at the take off point) must be at least 2.5 bar.

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

To use up the salt remains and to wash out the water softener, the "reactivate softener" / "REGENERATE" programme must be run again.

The serial interface is RS 232 compatible, (however see below).

The interface enables data transfer between the MCU and an EPSON-compatible report printer or PC.

The report printer offers the following timed printout options:

- Data and machine number
- Programme start (with programme number)
- Programme end
- Confirmation that programmed temperature has been reached, and relevant Code-texts
- all faults (with parameters, where given)
- all manual interventions.

(With older MCU versions, up to and including Version S2.05, the serial interface cannot be used, please consult Miele Service Dept).

### Note

Use only the interface cable provided by MIELE, as some of the contact points on the MCU interface are nonstandard to the RS 232. An unapproved cable could lead to malfunction of the MCU and peripheral equipment.

The following connection cables are available:

- 15 m connection cable for shortterm connection front interface – printer.
- 15 m connection cable for longterm connection internal interface printer (fitted by Miele customer service).
- 2 m connection cable for shortterm connection front interface – PC.

The cable can be obtained from Miele Commercial Sales Dept.

When connecting a printer to the MCU please note the following points:

- Only use an industry-standard PC or printer (e.g. in Germany TÜV or VDE approved).
- When installing the machine take the dimensions of the printer into account.
- After removing the interface cable push the black cap back on the interface.

The function PRINT should be selected in the system parameters SERIAL-MODE/FUNCTION, for the report printer to be activated. At the same time the same Baud rate (transfer speed) must be set for the printer as for the MCU. The following transfer speeds are possible:

1200, 2400, 4800, 9600, 19200.

## Serial interface

### Preparing MCU for report printout

### 1. Set the transfer speed:

Touch pad

MODE

(see the printer handbook).

Turn the key switch to position III or IV.

Display

zzz Programmname

**PROGRAMMING** 

2. Select communication type "PRINT" (printer connection)

Touch pad Display

**BAUDRATE** xxx

a)

٨

**FUNCTION PROG** 

**EDIT** 

**FUNCTION PROG** 

**FUNCTION PRINT** 

SET

**FUNCTION PRINT** 

RESET

zzz Programmname

٨

ready been set:

**FUNCTION PRINT** 

RESET

zzz Programmname

\_\_\_ = Numbers sequence flashes

b) or alternatively if "PRINT" has al-

xxx = transfer speed to be set

zzz = selected programme number

SYSTEMPARAMETER MODE CTEXT SPECIALS SERIAL MODE MODE **BAUDRATE** nnn **EDIT BAUDRATE** nnn BAUDRATE xxx SET

Consult the Miele Commercial Sales Department on the availability of dedicated PC programmes. (Programmes listed below may not be universally obtainable).

BAUDRATE xxx

#### MCU Protokoll-Manager (Report printout manager)

This programme can be used to record and store relevant report data, and where required load from a data carrier and print out from a printer (Epson compatible or HP-LaserJet).

#### MCU programmer software

In addition to simple programming through the MCU keyboard wash programmes can be created on a PC, stored and transferred to the MCU.

## Cleaning the filters in the wash cabinet

The wash water passes through a four filter combination in the base of the wash cabinet which consists of:

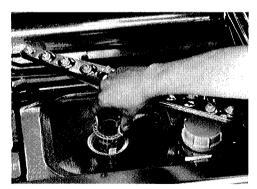
- Coarse filter
- Fine filter
- Flat filter
- Micro-fine filter

It is most important that the filters are kept clean otherwise the water overflow protection system cannot function properly.

The filter combination has been designed so that most of the soil is collected in the coarse filter.

The coarse filter should therefore be inspected and, if necessary, cleaned after every programme.

## Cleaning the coarse filter

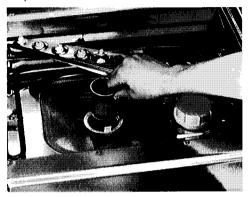


- Press the two lugs inwards and remove the filter.
- Clean the filter.
- Replace the clean filter and press until it clicks into place.

#### Fine filter

The fine filter is located under the coarse filter. It is for retaining glass splinters and similar soils which are not retained in the coarse filter.

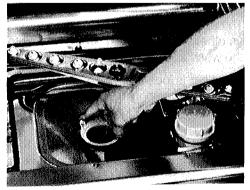
Whenever the coarse filter is cleaned, the fine filter should be removed and inspected.



- To remove, grip the fine filter as shown in the illustration, lift it out and clean.
- Replace the clean fine filter by inserting it into the centre of the microfine filter.

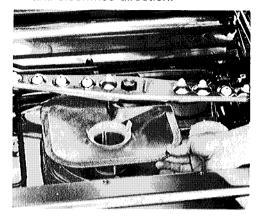
## Cleaning the flat and micro-fine filters

Remove the coarse and fine filter.



## Cleaning and care

To unscrew the micro-fine filter, take hold of the two lugs, turn twice in an anti-clockwise direction.



and remove together with the flat filter

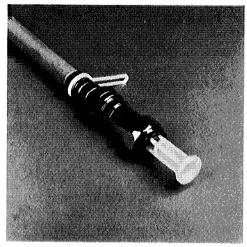
- Clean all the filters.
- Then replace the filter combination securely in the reverse order to which it was removed.

## The machine must not be used without all the filters in place Cleaning the filters in the water inlet

Filters are incorporated in each water inlet (hot and cold water) which protect the solenoid valve and filter out any impurities in the water supply.

The filters must be cleaned when dirty, as otherwise insufficient water flows into the wash cabinet.

One filter is located in the solenoid valve and may only be cleaned or replaced by a trained engineer. As this seldom needs to be done – if at all – there is an easily accessible filter in the threaded union of the water inlet hose and the large surface filter.

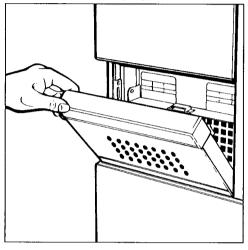


- Turn off the stopcocks.
- Unscrew the inlet hoses. Wrap a cloth around the outlet to soak up any excess water.
- Clean the filters or renew if necessary.
- Replace filter. Refit the hose and turn on the stopcock to test for leaks.

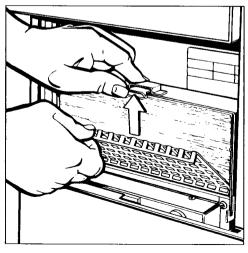
## Drying unit (TA) - Cleaning and Care

## Changing the Coarse-Filter (GROBFILTER)

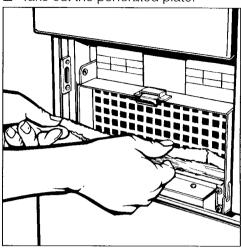
The coarse filter should be changed when it is soiled or after approx. 100 operating hours, (see time counter on the TA unit, or "GROBFILTER" shows on the MCU control display).



Grip the inlet grille to the right and the left and pull up out of the retainers and then downwards and off.



Take out the perforated plate.



- Change the coarse filter.
  - The smooth side of the filter must face the rear.
- Position the perforated plate at the base and press into place at the top.
   The edge surround should face
  - The edge surround should face forward.
- When closing the appliance the inlet grille should audibly click into place.

### **Exchanging the S-class particle filter**

It is advisable for this filter to be replaced after approx. 500 operating hours, (see the time counter on the TA control unit, or "FEINFILTER" shows on the MCU display).

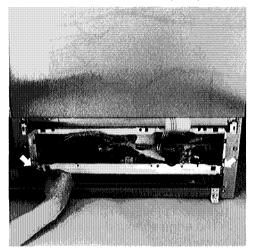
This filter should only be changed by an authorised Service Dealer or the MIELE Service dept.

The smooth operating of the appliance can only be achieved if original "Miele" S-class particle filters are used.

## Installation

# This machine is not suitable for use in areas where there is a risk of explosion.

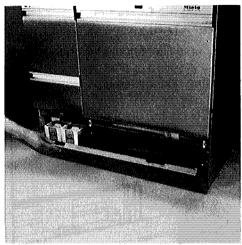
■ With built-in machines the gap between the machine and neighbouring units must not be filled with silicone as this would hinder the ventilation of the circulation pump.



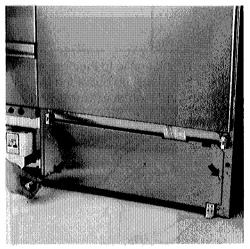
The machine must be installed correctly and levelled accordingly. Any uneveness in the floor level can be compensated for by adjusting the screw feet on the right and left hand sides, at the front of the machine.

The service panel must first be lifted off and the cover plate must be unscrewed.

Isolate the machine.



Holding the service panel at the top right and left hand corners, pull up out of the retainers and lift out at the bottom.



Unscrew the cover plate.

When the screw feet are screwed in, the disinfector can be moved backwards or forwards on its rollers.

### Electrical connection U.K./Australia

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

For technical data see data plate or the wiring diagram supplied.

The data plate is on the back of the machine, and also on the cover plate, (behind the service panel).

Before making connection check that the voltage, frequency and fuse rating shown on the data plate correspond to your mains supply.

Connection should be made via a suitable isolator which complies with local and national regulations, and the on-off switch should be easily accessible.

### WARNING THIS APPLIANCE MUST BE EARTHED

For extra safety it is advisable to install a residual current device (RCD) with a trip current of 30 mA (DIN VDE 0664).

## Programme card control

If the machine is to be converted, follow the wiring diagram. The wiring diagram is fixed behind the service panel, behind the plastic protection flap, next to the conversion terminal block, (see 2. below for location).

Conversion must be carried out:

- to the terminal block of connecting cable at rear of machine.
- to the conversion terminal block behind the service panel.

#### Note to 1.

- The terminal block of the connecting cable is situated behind the control console.
- Unscrew the fixing screws in the cover plate behind the control console.
- Take off the cover plate.



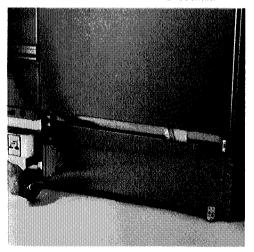
## Electrical connection

### Note to 2.



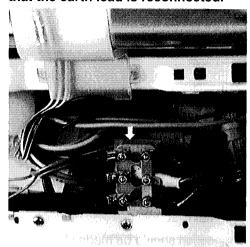
Holding the service panel at the top right and bottom left hand corners pull it up out of its retainers and lift out at the bottom.

Isolate the machine.



 Unscrew the fixing screws in the cover plate and remove the plastic protection flap.

## When re-assembling, make certain that the earth lead is reconnected.



### Standard German Version

The version of the machine supplied for the German market is 400 V 3N~, convertible. Total rated load is 9.7 kW, with appropriate 16 Amp fusing. See above for conversion instructions.

All electrical work must be carried out in compliance with VDE 0100. A residual current device, with a trip current of 30 mA should be fitted, (DIN VDE 0664).

### Connection to the water supply

The machine must be connected to the water supply in accordance with local and national regulations.

The machine is constructed to comply with DVGW regulations.

The machine is supplied as standard for connection to hot (max. 70° C) and cold water supplies. The machine may be connected to cold only. In this case, the programme times will be longer.

To ensure the hose marked 90° C lasts for many years it must not be used on a hot water connection supplying water hotter than 70° C.

The water pressure must be between 2.5 and 10 bar. If the water pressure is not within this range, the Miele Service Department will advise you which measures to take to ensure the smooth running of the machine under these conditions.

Stopcocks with 3/4" BSP male thread to be provided on site.

They should be located in an easily accessible position as the water supply must be turned off when the machine is not in use.

The two 1/2" inlet pressure hoses are approx. 1.7 metres long and terminate in a 3/4" BSP female thread. On no account must the inlet filters be removed except for cleaning.

Ensure that the washers are correctly positioned in the unions.

### Installing the water filters

Three large area water filters are included in the kit supplied, one each for hot, cold and demineralised water.

# The filter for de-mineralised water is made of chrome-nickel steel and can be recognised by its matt surface.

In each case, fit the water filter between the stopcock and the connecting hose.

### Connection to hot and cold water

The hot water inlet hose is marked with a red adhesive strip:

Connect the inlet hoses to the hot and cold water stopcocks.

## Connection to de-ionised water pressurised, (> 1.5 – 10 bar)

The machine is delivered from the factory ready for connection to a pressurised system from 1.5 to 10 bar.

■ Connect the "AD" pressure tested hose for de-ionised water (marked H<sub>2</sub>O pur"), with 3/4" thread, to the stopcock for the external supply of de-ionised water.

## **Plumbing**

### Connection to de-ionised water nonpressurised (0 – 1.5 bar)

The disinfector must first be converted before connection to de-ionised water non-pressurised 0.1 – 0.3 bar or 0.3 – 1.5 bar. As this work requires specialised knowledge, it should only be carried out by a Miele authorised engineer.

If de-ionised water is supplied from a non-pressurised container, the outlet valve must be at least 30 cm higher than the inlet valve of the machine. Do not let the hose hang down.

Connect the AD hose for de-ionised water to the de-ionised water container, non-pressurised.

See also separate installation instructions.

## **MCU** control

Programme a value of 45 seconds (depending on site conditions) in the ADD-WATER menu. (See Operating and Programming Manual, or ask the Miele Service Dept).

## Drainage

- The drainage system is vented and it has a ball-type non-return valve, to prevent water flowing back into the machine. It also acts as an odour trap.
- The machine must be connected to a separate drainage system on site.

- The machine is supplied with flexible drain hoses approx 1.5 cm long, (internal diameter 22 mm). Drain hoses must not be kinked. Hose clips for site connection are also supplied.
- Longer hoses are available (up to 4 m).
- The length of the drainage system must not exceed 4 metres, and the drain pump has a maximum delivery head of 1 metre.

See also separate installation instructions.

Your Miele dealer or the Miele Spares Dept can supply you with a variety of parts for special installations.

### Ventilation of wash cabinet at rear

The wash cabinet is normally vented by a ventilation grille at the front.

If a suitable venting system is available on site, the machine may be connected to this.

Rear ventilation of the wash cabinet must be made with a built-in drying unit (TA) where a DK (condenser unit) is not fitted.

A kit for rear ventilation of the wash cabinet is required, part. no. 1274150.

## Correcting minor faults

This machine is equipped with a heater limiter which cuts out if the appliance overheats. The switch can be reset when the cause of overheating has been corrected.

#### Characteristics:

The water in the wash cabinet does not heat up; the programme cycle takes too long.

Overheating can occur, for example, if large items being disinfected cover the heater elements, preventing them from fully transfering their heat to the water flowing back into wash cabinet. It can also occur if the filters in the wash cabinet are blocked and, therefore, too little water flows into the wash cabinet.

### Remedy:

- Find out the cause of the problem.
- Clean the filters in the water inlet.
- Switch on the heater by pressing the blue reset button on the heater limiter.

The heater limiter release switch can be found on the right-hand side behind the service flap.

- Remove the service flap as described in the section on "Electrical connection".
- Press the blue reset button.

You must call the MIELE SERVICE DEPARTMENT if the safety cut-out is triggered again.

## Test certificates

### Electrical

VDE 21013 G

### Water

DVGW A 227 Erw.

### Operation

BG: A. GES 018/81

### Hygiene

BGA:List in accordance with 10c BSeuchG; Rubric 3.3 (Federal German Health Authority, Disinfecting Regulations 10c, BSeuchG; Rubric 3.3)

## Help to protect our environment

### Disposal of the packing material

The transport and protective packing is mostly manufactured from the following re-useable materials:

- Corrugated paper / card
- Polystyrene CFC free
- Polyethylene foil (transparent) PE
- Fibre board solvent free
- Wood untreated
- Packaging straps: Polypropylene PP

Rather than just throwing these materials away, please take them to the nearest local authority collection point for specific waste.

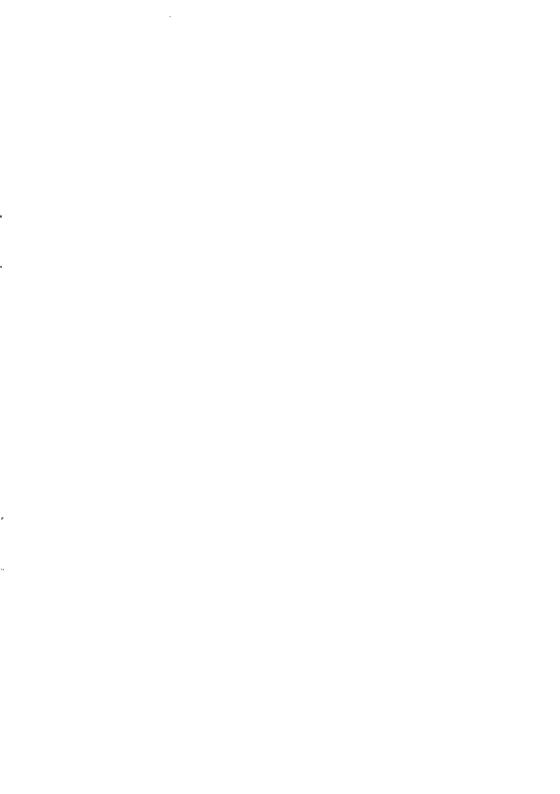
### Disposal of your old machine

Old machines contain materials which can be recycled. Please contact your local authorities or scrap merchant about potential recycling schemes, before disposing of the appliance.











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