

Operating instructions

M-iClean U

Glass-, dish- and utensilwashing machine

Translation of the "Original operating instructions"



EN

Type:

US
UM
UM+
UL

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Declaration of conformity

1 Declaration of conformity

Muster / Example / Exemple / Esempio / Ejemplo / Voorbeeld / Mönster

EG-/EU-Konformitätserklärung

EC-/EU-Declaration of Conformity / CE-/UE-Déclaration de conformité / CE-/UE-Dichiarazione di conformità / CE-/UE-Declaración de conformidad /
EG-/EU-conformiteitsverklaring / EG-/EU-försäkran om överensstämmelse

Firma

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Kontakt

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Seriennummer

Serial number / numéro de série / numero di serie / número de serie / volnummer / seriennummer

Spülmaschine Typ

Dishwasher model / Lave-vaisselle modèle / Lavastoviglie modello / Lavavajillas modelo / Vaatwasmachine model / Diskmaskin modell

M-iClean US

M-iClean UM

M-iClean UM+

M-iClean UL

Konformitätserklärung

Declaration of Conformity / Déclaration de conformité / Dichiarazione di conformità / Declaración de conformidad / Conformitetsverklaring /
Försäkran om överensstämmelse

Hiermit bescheinigen wir in alleiniger Verantwortung die Konformität des Erzeugnisses mit den grundlegenden Anforderungen der folgenden EG-Richtlinien, harmonisierten Normen, nationalen Normen.

We hereby declare at our sole responsibility that the product conforms to the essential requirements of the following EC Directives, harmonized standards, national standards.

Par la présente nous certifions sous notre seule responsabilité la conformité du produit avec les exigences fondamentales des directives CE, normes harmonisées et normes nationales suivantes.

Con la presente dichiariamo sotto la nostra responsabilità la conformità del prodotto con i regolamenti basilari delle seguenti direttive CE, normative armonizzate e normative nazionali.

Por la presente declaramos bajo nuestra sola responsabilidad que nuestros productos están en conformidad con las exigencias básicas de las siguientes directivas de la CE, normas homologadas y normas nacionales.

Hiermee verklaren wij onder geheel eigen verantwoordelijkheid de conformiteit van het product met de fundamentele en gestelde eisen volgens EG-richtlijnen, geharmoniseerde normen en nationale normen.

Vi intygar härmed på eget ansvar att produkten överensstämmer med de väsentliga kraven i nedan angivna EG-direktiv, harmoniserade standarder och nationella standarder.

Richtlinie / Directive / Directiva / Direttiva / Directiva / Richtlijn / Direktiv

2006/42/EG / 2014/30/EU

Dokumentationsbevollmächtigter

Responsible for documentation / Responsable de la documentation / Responsabile della documentazione / Responsable de la documentación / Voor deze documentatie verantwoordelijk / Ansvarig för dokumentation

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(per procura)

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Technischer Leiter

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Director técnico / Technisch directeur / Teknisk direktör





Notes on the operating instructions

2 Notes on the operating instructions

Dear customer,

We are delighted about the confidence you have shown in our products.

It is very important to us that you should enjoy using and benefit from MEIKO products and that they should make your work easier.

The operating instructions help familiarise the operator of this dishwashing machine with its installation, modes of operation, use, safety instructions and servicing.

The operating instructions are an integral part of the dishwashing machine and must be passed on to all subsequent owners or users.

Please read these operating instructions through carefully before use. Please also take note of any additional operating instructions for accessories and integrated third party components.

Only through understanding these operating instructions can errors be avoided and trouble-free operation of the dishwashing machine guaranteed. By paying attention to the operating instructions, hazards can be avoided, repair and breakdown costs reduced and the reliability and durability of the dishwashing machine can be increased.

Retain these operating instructions for the entire lifetime of the dishwashing machine. The storage location must be protected against moisture. Please store the operating instructions in a readily accessible location close to the dishwashing machine.

Ensure that all persons who work with or on the dishwashing machine have read and understood the operating instructions.

The operating instructions must be available in the local language for each EU country. If this is not the case, the washing machine must not be commissioned.

The original operating instructions in German and all operating instructions in all languages for EU countries can be downloaded from the following address: <https://partnernet.meiko.de>

The entire technical documentation are available free of charge. Additional copies are available for a nominal fee.

Notes on use of the operating instructions:

- A bullet point (•) designates an action step.
- Numerals (1.) designate several action steps that must be executed in the specified sequence.
- Position numbers in the text that refer to position numbers in figures are shown in parentheses:
(1) Position number 1 in the illustration
- The text is always below the figure and refers to it until a new image follows.



Notes on the operating instructions

2.1 Product identification

These operating instructions apply to the following machine types:
glass-, dish- and utensilwashing machine

- M-iClean US
- M-iClean UM
- M-iClean UM+
- M-iClean UL

2.2 Delivery contents

The delivery contents include:

- 1x glass-, dish- and utensilwashing machine M-iClean
- Matching baskets for glassware, dishes and containers depending on machine model
- Measuring cup for adding detergent and rinse aid for machines with internal dosing systems
- Connecting hoses for fresh water and waste water
- Documentation

2.3 Related documents

The following documents belong to these operating instructions:

- Installation drawing
- Wiring diagram
- Installation instructions for optional components (e.g. GiO module)



Notes on the operating instructions

2.4 Name and address of manufacturer

Should you require any further information, or in case special problems arise that are not dealt with in sufficient detail in the operating instructions, you can request the required information from the following addresses:

MEIKO Maschinenbau GmbH & Co. KG

Englerstraße 3

D - 77652 OFFENBURG

Telephone: +49(0)781/203-0

<http://www.meiko.de>

info@meiko.de

or:

Name and address of the MEIKO branch, manufacturer's agent or MEIKO-authorised service partner

(Enter company's stamp or address)

All rights, including photo-mechanical reproduction and storage on electronic media, are reserved to MEIKO Maschinenbau GmbH & Co. KG. Any commercial use or distribution of the texts, illustrated models, drawings and photographs within this product is not permitted.

It is not permitted to reproduce, store or pass on the operating instructions, either in whole or in part, or transfer or translate it, in any form or with any medium, without prior written approval.

MEIKO wishes you much pleasure and success.

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Liability and warranty

3 Liability and warranty

All of MEIKO's obligations arise from the relevant purchase contract, which also contains the entire and only valid guarantee provisions. These contractual guarantee provisions shall be neither extended nor restricted as a result of any explanations given in the instructions.

Further, we draw your attention to the fact that the content of these instructions do not form part of a former or existing agreement, promise or legal relationship and does not modify such a point.

If you follow the instructions in this operating manual carefully, your dishwashing machine will always give you total satisfaction and will have a long service life.

The delivered system corresponds to the state of technology and safety regulations valid at the time of production/delivery.

The information, data and notes specified in the operating instructions correspond to the latest version at the time of printing. No claims for already delivered systems may be asserted based on these statements, illustrations and descriptions.

Claims must be reported to the manufacturer immediately after determination of the defect or error. Liability claims for personal injury or material damage as well as for operational problems are excluded if they are due to one or more of the following causes:

- Unintended use.
- Improper installation, commissioning, operation and maintenance.
- Operation of the machine or system with defective safety devices or improperly attached or non-functioning safety and protective devices.
- Noncompliance with the notes in the operating instructions regarding transport, storage, mounting, commissioning, operation and maintenance.
- Unauthorised design changes or settings on the machine or system beyond the intended purpose.
- Improper monitoring of parts subject to wear.
- Use of wear and replacement parts that are not from the manufacturer.
- Improperly performed repairs, inspections or maintenance.
- Catastrophes due to human-induced events or force majeure.



4 Safety

This dishwashing machine has been constructed and designed based on a risk assessment and careful selection of the applicable harmonised standards, as well as additional technical specifications.

It is therefore state-of-the-art and guaranteed to provide maximum safety.

4.1 Symbol explanation

4.1.1 Notes in the instructions

In these operating instructions important notes for safety are specially marked with symbols. Please always observe these notes to avoid accidents and damages to the system.

Warnings

Danger

Short description of the danger:

The signal word **DANGER** designates an immediately threatening danger.
Failure to observe this leads to very serious injuries or death

Warning

Short description of the danger:

The signal word **WARNING** designates a possible danger.
Failure to observe this can lead to very serious injuries or death.

Beware

Short description of the danger:

The signal word **BEWARE** designates a possible danger.
Failure to observe this can lead to minor to medium injuries.

Application information

Caution

Short description:

The signal word **Caution** designates a possible danger.
Failure to observe this can lead to damage to the machine or system.



Note

The signal word **Note** designates further information on the machine / system or its application.



Safety

4.1.2 Safety symbols in the instructions

The following note and danger symbols are used both in the operating instructions and on the machine. Observe these symbols and signs on the machine to avoid personal injury and material damage!

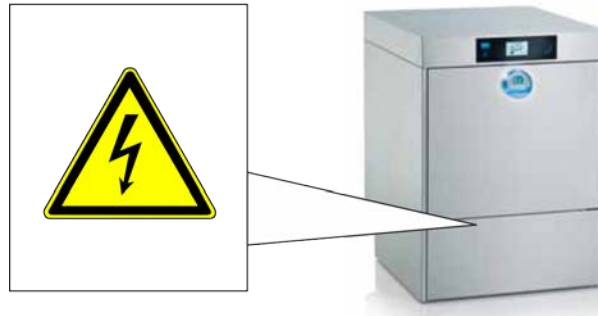
The symbols have the following meanings:

Symbol	Meaning
	Warning of hazardous areas
	Warning of dangerous electric voltage
	Warning of the danger of hand injuries Beware, keep hands away from parts that bear this warning symbol. The danger exists that hands can be crushed, pulled in or otherwise injured.
	Warning of hot surfaces and liquids
	Warning of the machine falling over
	Warning of environmental damage
	Do not spray with water
	Not drinking water
	Access prohibited for persons with pacemakers
	Eye protection must be used or protective glasses must be worn
	Hand protection must be worn
	Read the operating instructions
	Potential equalisation connection



Safety

4.2 Safety instructions on the machine



The machine has a safety note attached. This is located underneath the front panel.

4.3 Requirements for the personnel

Commissioning, instructions, repairs, maintenance, assembly and installation of or on MEIKO machines must only be carried out/authorised by MEIKO-authorised service partners.

During operation it must be ensured that:

- Only adequately trained and instructed personnel are allowed to work on the machine.
- Personnel responsibilities for operation, maintenance and repairs must be clearly defined.
- Any personnel undergoing training are only allowed to work on the machine under the supervision of an experienced person.

The required qualifications for performing specific work at the machine are determined by MEIKO.

Persons Activity	Trained operating staff	MEIKO authorised company tradesman	MEIKO authorised service technician
Installation/assembly			✓
Commissioning			✓
Operation, use	✓	✓	✓
Cleaning	✓	✓	✓
Check safety devices		✓	✓
Troubleshooting	✓	✓	✓
Troubleshooting, mechanical	✓	✓	✓
Troubleshooting, electrical		✓*	✓
Maintenance		✓	✓
Repairs		✓	✓

* with training as an electrician



Safety



Note

The instructions must be acknowledged in writing.

Qualified staff, as defined by the operating Instructions, are persons:

- over 14 years of age,
- due to their training, experience and instruction are able to perform the required activities,
- are authorised to perform the required activities by the person responsible for safety of the machine,
- who have been trained in first aid and in the on-site rescue arrangements,
- have read and understood the operating instructions and corresponding safety instructions and will follow them.

4.4 Residual risks

Phase	Activity	Nature of the hazard	Avoidance measure
Transport and assembly	Loading and unloading with forklift truck	Crushing/bumping	<ul style="list-style-type: none"> • Load-bearing capacity of the forklift truck must be adequate for the weight of the machine • Please note the machine's centre of gravity • Secure to prevent slipping
	Deposit at the installation location	Crushing/bumping	<ul style="list-style-type: none"> • Ensure that the ground beneath is capable of taking the load • Ensure that the machine cannot tip
	Install electrical connections	Electric shock	<ul style="list-style-type: none"> • Only skilled personnel may connect up the machine • Adhere to the accident prevention regulations
Commissioning	Filling with detergent/rinse aid	Eye injury/health risks	<ul style="list-style-type: none"> • Wear protective eyewear/gloves • Avoid contact with skin and eyes
Operation	Loading and unloading the dishwashing machine	Trapping of hand	<ul style="list-style-type: none"> • To close the machine door, use the handle intended for this purpose
		Grazing finger on fanwheel if still running (unloading)	<ul style="list-style-type: none"> • Do not grip using fanwheel (position tank cover to rear)
		Risk of snagging with loose clothing or items of jewellery	<ul style="list-style-type: none"> • Wear suitable work clothing and sturdy shoes • Do not wear rings, necklaces or other pieces of jewellery
		Slipping	<ul style="list-style-type: none"> • Use non-slip floor coverings
		Scalding	<ul style="list-style-type: none"> • If necessary, allow washware to cool down • If necessary, allow machine components to cool down before touching • Protective gloves recommended



Safety

	Other activities	Injury through standing or sitting on the open machine door	<ul style="list-style-type: none"> Ensure that nobody sits or stands on the door
		Swallowing of water in the rinsing area	<ul style="list-style-type: none"> Do not use the rinse water for food preparation Do not drink the rinse water
	Refilling with detergent/rinse aid	Eye injury/health risks	<ul style="list-style-type: none"> Wear protective eyewear/gloves Avoid contact with skin and eyes
Maintenance and cleaning	Any maintenance work	Electric shock	<ul style="list-style-type: none"> Before opening the covering panels, ensure the mains switch has been disconnected and secured so that it cannot be turned on again Only specialist personnel may carry out maintenance work
	Cleaning or maintenance	Scalding	<ul style="list-style-type: none"> Allow machine components to cool down before touching Wear protective gloves
Dismantling and disposal	See transport and assembly		

4.5 Intended use

The dishwashing machine must only be used in accordance with its intended purpose and as per these operating instructions.

The dishwashing machine is designed for cleaning dishes, cutlery, glassware, kitchen utensils, baking trays and containers. Where applicable, other specialist washware is described in the order confirmation.

The washware must be suitable for dishwashing machines. If there is any doubt, a consultation (size, version, basic suitability for dishwashing machine, etc) can be carried out with MEIKO to confirm suitability (info@meiko.de).

The following applications are expressly not intended:

- Processing hazardous substances in the machine (health hazards, in particular toxic, highly or extremely flammable and explosive substances).
- Operating the machine in an explosive environment.



Safety

4.6 Foreseeable misuse

Any use which is not detailed in the section on "Intended use" is contrary to the intended use!

The dishwashing machine must **not** be used for these foreseeable misuses:

- Kitchen utensils with electronic components
- Textiles, oven cloths or steel sponges
- Utensils that must not come into contact with foodstuffs (e.g. ashtrays, candlesticks, etc)
- Living creatures
- Food for subsequent consumption
- The preparation of foodstuffs
- Iron utensils
- Support grids of cooking hobs / gas hobs
- Wash ware that is not dishwasher-proof
- Introducing service water into the local waste water system
- Standing or sitting on the open machine door

4.7 Fundamental safety and accident prevention regulations



Note

The following safety instructions aim to protect operating personnel as well as other third parties and the dishwashing machine itself.

Please take note of the information in these instructions and the signs on the dishwashing machine.

However, safety can only be guaranteed during operation if all necessary measures are taken.

The operator of the machine has an obligation of care to ensure that these measures are planned for and also to check that they are correctly implemented.

The operator must ensure in particular that:

- the dishwashing machine is only used in accordance with its intended purpose. In the event of the machine being used or operated contrary to this, damage or risks may arise.
- in order to guarantee functionality and safety, only original spare parts supplied by the manufacturer must be used.
- the safety of the dishwashing machine is not impaired by the subsequent installation of a dosage facility.
- only appropriately qualified and authorised personnel operate, maintain and repair the machine.
- no one sits or stands on the open door.
- staff are regularly trained in all questions relating to occupational safety and environmental protection and are familiar with the operating instructions and, in particular, the safety information contained therein.
- the dishwashing machine is only operated in perfect, functional condition, all protection devices and cover panels are installed
- the safety and switching equipment are regularly tested to ensure they are functioning correctly.



Safety

- dishwashing machines which are accessible from the rear may only be operated with rear panel cladding.
- the required personal protective equipment is made available to and worn by maintenance and repair personnel.
- a functional test on all dishwashing machine safety systems is carried out at every regular maintenance.
- none of the safety and warning notices affixed to the dishwashing machine itself are removed and all are legible.
- regular checks on supply parts are carried out. If required, more detailed information can be found in the relevant operating instructions.
- after installation, commissioning and handing over of the machine to the customer/operator, no modifications may be made (e.g. to electrical components or to the machine's location)
- equipment for optimising energy consumption must not be used to lower the required operating temperatures, as set out in the standards DIN 10510, 10511 and 10512. If equipment for optimising energy consumption is nevertheless installed, MEIKO does not accept any responsibility for a possible reduction to the quality of the wash and to hygiene.

Information on operating the dishwashing machine:

- Only operate the dishwashing machine under the supervision of trained personnel.
- Do not use the dishwashing machine if you are unsure about its operation.
- Always close all doors and flaps.
- After use, turn off the machine at the mains switch. This is located in the electrical supply for the machine.
- Wear suitable work clothing.
- When working on the machine, wear appropriate protective gloves.
- Allow machine components to cool down before touching.

Information on use of detergent and rinse aid:

- Only use detergents and rinse aid suitable for commercial dishwashing machines.
- Acquire information from the manufacturers of these products.

Detergent and rinse aid may contain hazardous substances. The rinse water used during operation contains chemicals.

- Never drink the rinse water.
- Contact a doctor immediately if rinse water is swallowed.
- Pay attention to the manufacturers' hazard warnings on the original containers and safety data sheets.
- When handling chemicals, wear appropriate protective gloves and eyewear.
- Do not confuse detergent and rinse aid.
- Ensure that the suction connections for the machine are correctly connected to the containers.

Information on the use of descaling agents

Residue from descaling agents can cause damage to the plastic components and sealing materials in the machine.

- Acquire information from the manufacturers of these products.
- Please observe the manufacturer's hazard warnings.
- Thoroughly remove any residue after use.



Safety

Information on cleaning the machine

Foam can cause malfunctions in the dishwashing machine and a poor wash.

- Do not use a foaming manual dishwashing detergent for pre-cleaning or for cleaning the machine.
- Allow machine components to cool down before touching.

Information on cleaning the surrounding area

When cleaning the surrounding area, the machine can be damaged by aggressive external influences (fumes, cleaning substances) or the ingress of water.

- Do not use aggressive cleaning agents (e.g. aggressive tile cleaner).
- If installed at ground level, never allow the surrounding area to flood.

Information on electricity and electronics

Depending on requirements, the dishwashing machine is to be connected to a single-phase (230 V) or a three-phase (400 V) earth wire system. There is a risk of fatal injury if exposed, electrically charged components or cables are touched.

- Please take note of the warning information in these instructions and the signs on the dishwashing machine.
- For all work on electrical components in the machine, ensure that the electrical connections are physically secure.
- For all work on electrical components in the machine, check the wires and cables for any possible damage and replace, if necessary.

Incorrect cleaning can cause damage to the electronics.

- The dishwashing machine, switch cabinets and other electrical components must never be sprayed with a hose or high pressure cleaner.
- Make sure that no water can enter the machine unintentionally.

Information on non-ionising radiation

Non-ionising radiation is not produced intentionally but unfortunately comes about due to electrical operating equipment (e.g. electrical motors, high-voltage cables and magnetic coils). In addition, the machine has no strong permanent magnet.



4.8

What to do in the event of an emergency

In emergency situations, rapidly switching off the machine will help prevent personal injury or material damage.



- Disconnect the dishwashing machine from the power supply using the locally available mains switch.



Product description

5 Product description

5.1 Functional description

The product is a glass-, dish and utensilwashing machine with a rectangular basket. The machine has one wash and one final rinse cycle.

A temperature regulator maintains the set wash temperature of between 58-60 °C. A rotary pump circulates the water from the wash tank into the wash nozzles. The water jets hit the wash ware from different directions. This ensures uniform washing results.

The wash cycle is followed by a fresh water final rinse. The items being washed are rinsed with hot fresh water at 80-83 °C (65 °C for the glass programme) via a separate nozzle system. This heats up the wash ware for the following drying process.

At the same time, the final rinse water is used to regenerate the rinse water; this reduces the degree of soiling of the rinse water.

5.2 Overview illustration



- | | |
|------------------------|--|
| 1 Operating display | 4 Front panel |
| 2 LED indicator handle | 5 Connectors for detergent and rinse aid |
| 3 Machine door | |

The dosing pumps for detergent and rinse aid are located under the front panel (4).

- To remove the front panel (4), push it gently upwards, tip and then pull it out of the slot.



Product description



The optional GiO module (1) is located in different positions depending on the particular model ordered.

- In the external casing next to the machine.
- Integrated beneath the machine.
- Integrated at the rear of the machine.

5.3 Type label

For the M-iClean U the type label is located on the inside of the lower front panel.

m MEIKO		MEIKO Maschinenbau GmbH & Co. KG Englerstraße 3 D-77652 Offenburg
Glass- and dishwashing machine		①
Type:	M-iClean UM +	②
SN:	10342638	③
Voltage:	3 N/PE 400 V 50 Hz	④
El.Total load:	6.7 kW 14.0 A	⑤
EL.connect Boiler:	6,0 kW	⑥
Water pressure:		⑦
Boiler capacity:	7,9 l	⑧
Steam:		⑨
Year of Constr.:	2017	⑩
CE ⑫ IP ⑬ X5		⑪

The following information can be found on the type label for the M-iClean:

- 1 Name and address of manufacturer
- 2 Machine type
- 3 Model name
- 4 Serial number
- 5 Current type
- 6 Electrical connection
- 7 Rated power boiler
- 8 Water pressure
- 9 Boiler capacity
- 10 Steam connection
- 11 Year of manufacture
- 12 CE mark
- 13 Degree of protection of enclosure



Product description

5.4 LED indicator handle

The LED indicator handle lights up in different colours depending on the operating mode.



– Blue: Machine is ready to operate.



– Green: A wash cycle is running.



– Red: There is a status notification.

5.5 Additional functions

5.5.1 Eco mode



During periods of inactivity (pauses), the machine displays a leaf symbol to show that energy is being saved and components protected.

	Active following	Description
ECO MODE I	60 sec	Rinse water temperature reduced.
ECO MODE II	180 min	Rinse and wash water temperatures reduced. Water level in wash tank adjusted to optimum level.
ECO MODE III	8 h	Boiler is drained. Wash water temperature is reduced. Water level in wash tank adjusted to optimum level.
ECO MODE IV	14 h	Machine is drained and shut down.

5.5.2 Forced drainage

If the wash tank and boiler have been full for 24 hours, they will be force drained. The water in the wash tank and boiler is pumped out.

Forced drainage takes place depending on operational status:

- **MACHINE OFF:** when machine is switched on
- **ECO MODE:** either after 24 hours or upon start of Eco mode III or IV, .
- As soon as the door or hood is closed for the first time after 24 hours have passed.



Product description

5.6 Dosing equipment

Caution

Reduced durability of dosing equipment and other dishwashing machine components

The use of inappropriate detergent and rinse aid can corrode the dosing equipment and other machine components.

- If relevant, discuss with MEIKO and detergent supplier.



Detergent dosing

The detergent dosing unit is designed to automatically add liquid alkaline detergent to the dishwashing machine (the manual addition of detergent products is not recommended).

The detergent is transported from the storage container to the wash tank via a hose conduit. The dosing equipment is self-priming. Dosing occurs during each filling cycle and at the beginning of each program cycle via timer control.

Normally, a dosing of approx. 2 ml of detergent per litre of tank water is the correct concentration. This may, however, be increased up to 5 ml/l or reduced to 1 ml/l depending on the water quality, the type of items being washed and how dirty they are.

Rinse aid dosing

The rinse aid dosing unit is designed to automatically admix liquid final rinse aid into the fresh water.

The rinse aid is pumped out of the storage container into the fresh water supply line through a hose conduit. The dosing equipment is self-priming. Dosing takes place during each filling cycle.

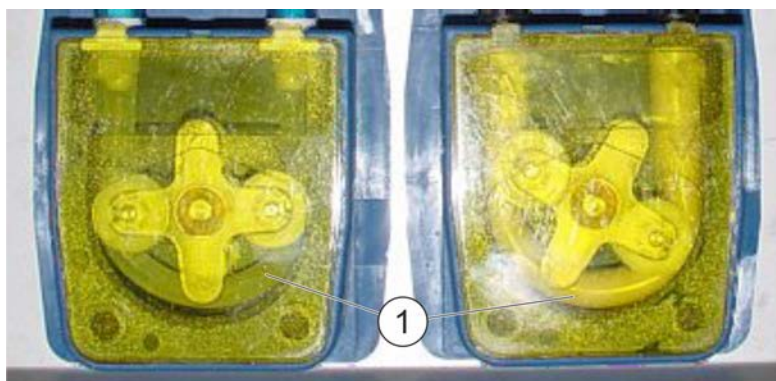
The correct dosage leads to an even water film.

In case of overdosing, bubbles and stripes will form, which means that the dosage needs to be reduced.

In case of under-dosing, water drops remain on the wash which means that the dosage needs to be increased.

Dosing equipment lifetime

The lifetime of dosing equipment and its components depends on the chemicals used.



G00030

The peristaltic tubes (1) are wear and tear parts whose longevity depends heavily on the chemicals used and on the duration of use. If required these must be replaced.



Product description

5.7 Dishwashing machines with disinfection control (optional configuration)

Caution

Glass corrosion and loss of decorations due to high water temperatures and long washing times

- Make sure that the dishes and glassware used are suitable for the high stress placed on them.

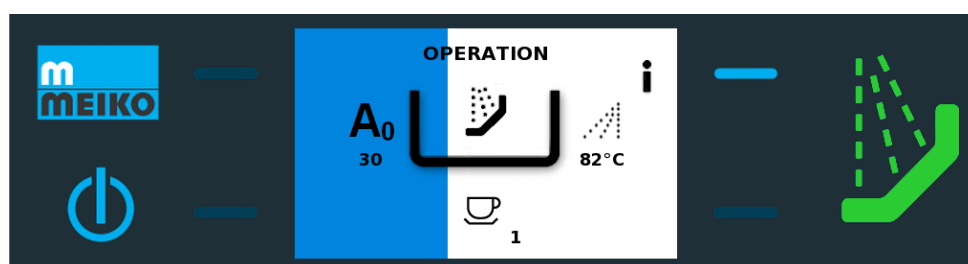
MEIKO offers two types of machine with thermal disinfection for institutions with additional hygiene requirements. Both versions have a greater heating capacity in the wash tank than standard machines.

5.7.1 A0 control

The term **A₀** refers to a way of measuring how microorganisms are eliminated by moist heat disinfection methods. By using a moist heat disinfection method, it is expected that a specific temperature over a period of time has the effect of eliminating a predictable number of microorganisms with a particular resistance.

The standard setting for a dishwashing machine with A₀ – control is the hygiene value **A₀ 30**:

- The tank temperature during washing is up to 74° C.
- From a tank temperature of 65° C each tank temperature is assigned a factor.
- The time in seconds per temperature value is measured and the factors are added up until the hygiene value of **A₀ 30** is reached.
- The rinsing process runs until the end of the set programme runtime, but at least until the temperature value is reached. After this comes a pause for draining and the final rinse.



The display shows the current A₀ value.



Technical data

5.7.2 Thermolabel control

In a way which is similar to A₀ control, machines with Thermolabel control have a disinfection process which uses moist heat. The dishwashing machine heats the rinse water to a higher temperature in order to eliminate germs. The efficacy of the disinfection can be tested using a measurement strip, the Thermolabel. The measurement strip changes colour after 4 seconds at 71 °C for a wash item.

- During washing the tank temperature is heated up to 71° C and maintained at that temperature.
- The rinsing process runs until the end of the set programme runtime, but at least until the temperature value is reached. After this comes a pause for draining and the final rinse.
- Washing at high temperatures and long spells in the wash tank can lead to glass corrosion and premature wear to decoration.

6 Technical data

MEIKO has created a dimensional drawing that shows machine dimensions as well as connection and consumption values.

Further data should be taken from the MEIKO dimensional drawing.

Machine weight

Equipment Versions	Basic machine	Basic machine + GiO in the base	Basic machine + GiO separate
M-iClean US	56 kg	63 kg	80 kg
M-iClean UM	63 kg	82 kg	87 kg
M-iClean UM+	74 kg	93 kg	98 kg
M-iClean UL	77 kg	96 kg	101 kg

Noise emissions

Work place noise level LpA ≤ 70 dB

Water pressure

The water pressure for the fresh water supply before the solenoid valve must be in the following pressure range:

- Machines without GiO module: 0.6 - 5 bar
- Machines with GiO module: 1 - 5 bar
- If the minimum pressure flow is too low, increase the pressure using a booster pump.
- If the maximum pressure is exceeded, limit the pressure using a pressure regulator.



7 Assembly



⚠ Warning

Danger of injury due to entry into a danger zone

Unauthorised persons might be in or enter the danger zone during transport, assembly, commissioning, maintenance and repair work. This can lead to injuries.

- Only qualified persons should perform work at and with the machine.
- Remove unauthorised persons from the danger zone.
- Block off danger area and mark it for third parties.
- Never remove or disable safety devices on the machine.

7.1 Prerequisites for assembly

7.1.1 Checking the condition at delivery

- Check that the delivery is complete immediately after receiving it by comparing it with MEIKO's order confirmation and/or the delivery note.
- If applicable, submit a claim for any missing parts immediately to the freight forwarder and notify MEIKO.
- Check the machine for transportation damage.



Note

If there is any suspicion of transportation damage, the shipping company and MEIKO must be informed immediately in writing. Photograph any damaged parts and send the pictures to MEIKO.

7.1.2 Requirements for the installation area

The dishwashing machine is only frost-proof in as-delivered state or if equipped with special features (optional: frost removal).

Installation of the dishwashing machine in an area where the ambient temperature is below 0° C can result in damage to the internal water circuit components (e.g. pump, solenoid valve, boiler, etc.).

- Ensure that the storage and installation locations are always frost free.

There is a danger of slipping in the working area due to the use of water.

- After assembly, put in place non-slip floor coverings in the working area based on the general/location-specific safety regulations.



Assembly

7.1.3 Requirements for the waste water connection

A waste water pump is integrated into the drain pipe.

- At the installation location an odour seal is provided (further information in the dimensional drawing).
- Connect the drainage hose to the locally available waste water pipe.
- Depending on the dishwashing machine application, a grease trap may be included based on the general/location-specific regulations.
- For machines with GiO module, attention must be paid to the specifications for waste water connection in the operating and service instructions included with the GiO module.

7.1.4 Requirements for the fresh water connection

Fresh water connections and components thereof must be established in accordance with local regulations, e.g. EN 1717/DIN 1988-100.

The basic model of the dishwashing machine features an air gap (type AA or AB as per EN 1717 or EN 61770). In the case of SVGW (Switzerland) and other countries, a type EA safety device is also required in front of the connecting tube.

For dishwashing machines with a GiO Module, attention must be paid to the fresh water connection requirements outlined in the operating instructions for the GiO Module.

Pressure range – fresh water supply water pressure before the solenoid valve:

- Machines with no GiO Module: 0.6–5 bar (60–500 kPa)
- Machines with GiO Module: 1–5 bar (100–500 kPa)

Measures to ensure the correct water pressure:

- If the minimum pressure flow is too low, increase the pressure using a booster pump.
- If the maximum pressure is exceeded, limit the pressure using a pressure regulator.

A water stop is integrated into the dishwashing machine's fresh water line. This, together with the leakage detector in the floor tray in the frame, ensures that the fresh water inlet within the machine is shut off in the event of a leak.

- Ensure that no rogue iron particles can enter the appliance via the mains water supply. The same also applies for contamination by other metal particles (e.g. copper shavings). Corresponding instructions are contained in the installation drawing.
- A dirt trap must be fitted in the fresh water supply to protect the solenoid valve.



Assembly

7.1.5 Requirements to the electrical connection



⚠ Warning

Danger to life from electric shock

Contact with live electrical parts can lead to serious injury or death.

- Work at or repairs to the electrical system must be conducted by a qualified electrician who complies with the electrotechnical rules.
- Disconnect the machine from the power supply before working on the electrical system. To do this, turn the local mains switch to **OFF** and ensure that it can't be switched back on again.



Note

The wiring diagram is located behind the front panel of the dishwashing machine. This must remain in the machine!

The type plate with the electrical connected values is located inside the front panel.

To ensure that the appliance can be connected, the following has to be provided by the customer:

The correct voltage and type of current must be available.

The power supply must be safeguarded in accordance with the regulations and a main switch provided in the fixed electrical installation.

If an unearthed neutral conductor (N) is used with three-phase current, the power disconnection device must have 4 poles (with alternating current 2 poles).

The dishwashing machine must be connected to a potential equalisation system!

If the neutral line (N) is not earthed, you must use a 4-pin mains switch. Mains power cables must be oil-resistant, shielded cables no lighter than an H07RN-F cable.

A 5-pole terminal strip (L1, L2, L3, N, PE) must be used for connection to a three-phase current.

Electricity supply without a neutral conductor (N): when connecting to three-phase current, use a 4-pole clamping strip (L1, L2, L3, PE).

Conductor colours: live conductor L1 = black/1, L2 = brown/2, L3 = grey/3, neutral conductor N = blue/4, ground wire conductor PE = green-yellow

The potential equalisation connection must be carried out in accordance with the requirements of the local electricity supply companies and all applicable local regulations (in Germany VDE 0100 Part 540 must be observed).



Assembly

The products are intended for permanent connection to the locally available power supply and have been tested for the market accordingly. Any other form of electrical connection is to be established by a licensed electrician.

Do not connect any additional consumers to the fuse protecting the machine.

- Re-tighten all terminal fixing screws before commissioning.

Note for frequency converter

If using a frequency converter within the area for the VDE 0160 / EN 50178, an all-current sensitive FI type B must be installed before or instead of the existing fault current circuit breaker FI type A.

For USA/Canada only:

The dishwashing machine must be installed in accordance with local regulations. In the absence of any such regulations, the machine must be installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1 and the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.

7.2

Transport



⚠ Warning

Danger of injury from the machine falling over

The machine can fall over if transported incorrectly. People can be injured as a result.

- Transport work must be performed only by qualified persons.
- Please note safety instructions on the packaging.
- Always transport the machine only on the supplied wooden frame.
- Wear protective gloves and shoes.

The packaging is specifically designed to allow the appliances to be moved safely and securely using a pallet jack or a sack truck. For safe transport, the dishwashing machine is supported by a special square-timber frame.



- Execute transport carefully.
- Open packaging using a suitable tool.
- Unpack the dishwashing machine only after transport is completed.



Commissioning

7.3 Perform assembly

Caution

Material damage due to steam escape

Small quantities of steam may escape through the dishwashing machine's door area. It is possible that adjacent furniture can swell up.

- Protect adjacent furniture from swelling up.
- If possible, avoid installing the machine in an area close to sensitive furniture.



Note

Assembly may be performed **only** by a licensed and authorised service technician!

Assembly must be carried out in accordance with the installation drawing.



- Ensure the machine is level in both directions by using a water level.
- Compensate for an uneven floor by adjusting the foot studs (1).
- Table joints must be sealed with detergent-resistant sealing compound (e.g. silicone).
- Check that the machine is stable.

For disposal of packaging materials, see section "Dismantling and disposal" on page 64!

8 Commissioning



⚠ Warning

Danger of injury due to entry into a danger zone

Unauthorised persons might be in or enter the danger zone during transport, assembly, commissioning, maintenance and repair work. This can lead to injuries.

- Only qualified persons should perform work at and with the machine.
- Remove unauthorised persons from the danger zone.
- Block off danger area and mark it for third parties.
- Never remove or disable safety devices on the machine.



Commissioning

8.1 Check prerequisites for commissioning

Caution

Material damage due to steam escape

Small quantities of steam may escape through the dishwashing machine's door area. It is possible that adjacent furniture can swell up.

- Protect adjacent furniture from swelling up.
- If possible, avoid installing the machine in an area close to sensitive furniture.

Prerequisites to be provided by the customer:

- Consistently frost free storage and installation area.
- Anti-slip floor coverings installed in the work area around the dishwashing machine.
- Electrical connection in accordance with the dimensional drawing.
- Fresh water connection in accordance with the dimensional drawing.
- Waste water connection in accordance with the dimensional drawing.

8.2 Perform commissioning



Note

Instruction and initial commissioning may be performed **only** by an authorised service technician! The operator must not use the dishwashing machine before completing training.

To avoid damage to the appliance or dangerous injuries during commissioning of the machine, please note the following points:

- Check supplier parts (e.g. external water processing devices or heating pumps). More detailed information can be found in the relevant operating instructions.
- Ensure that all tools and foreign parts are removed from the machine.
- Make sure that any escaped fluids have been removed.
- Before commissioning, activate all safety systems and door switches (on under-counter machines).
- Check all screw connections sit securely.
- For dishwashing machines with GiO Module, attention must be paid to the "Commissioning certificate for GiO Modules" and the instructions adhered to accordingly.

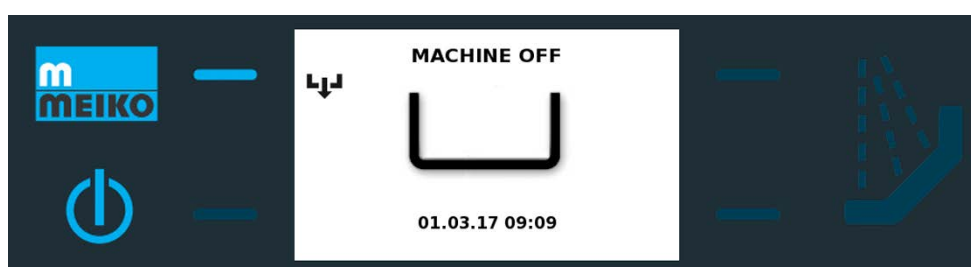


9 Operation/use

9.1 Operation panel

The machine is equipped with an operation panel. This includes a total of 7 keys which are used to operate the machine. A display in the centre of the operation panel provides information about the machine's current operational status. In addition, depending on which of the 4 confirmation keys next to the display is pressed, further information and menus are displayed. Inactive confirmation keys are not illuminated.










The meaning of each of the keys and symbols is described below.



Key/symbol	Meaning
	On/Off key
	Filling/heating on or machine off
	Confirmation key
	Meaning/function is shown on the display next to the relevant key
	Wash key
	Flashing blue: filling/heating active
	Flashing green: filling/heating active / memory start
	Illuminated blue: machine is ready for operation
	Illuminated green: washing active
	Service access key/wake-up key
	i-Menu
	Action menu
	Menu self-cleaning/draining



Operation/use

Key/symbol	Meaning
	Programme: cutlery
	Programme: cups
	Programme: dishes
	Programme: pans
	Programme: glasses - gentle
	Programme: glasses - normal
	Programme: glasses - intensive
	Programme: glasses - gentle + cold water rinse
	Programme: glasses - normal + cold water rinse

9.2 Detergent and rinse aid

MEIKO recommends brand cleaning products from leading manufacturers.

Cleaning and hygiene products from  make an excellent choice.

Chemical product settings

The required detergent and rinse aid are dispensed from storage containers into the tank or boiler by electronically controlled dosing equipment. Dosing occurs automatically based on the requirements for the washing process.

The correct settings for the quantity of detergent and rinse aid depend on the product used. The relevant chemical supplier can install the correct setting.

Recommendations:

- The pH value of the detergent should be greater than 7.
- The pH value of the rinse aid should be between 7 and 2.

Change of products

Change of product means that one rinse aid or detergent is replaced by another. If these different products are mixed, it can lead to unwanted occurrences, such as precipitations.

- Before using new products, thoroughly rinse the hoses and dosing units with warm water.



Operation/use

9.3 Washing with the dishwashing machine

9.3.1 Preparation for washing



⚠ Warning

Danger of injury from contact with chemicals

Detergent and rinse aid result in damage to health if in contact with skin or eyes or if swallowed.

- Use eye protection.
- Wear protective gloves.
- Contact a physician immediately if chemicals or water containing chemicals (rinse water) are swallowed.



⚠ Beware

Danger of injury when closing the machine door

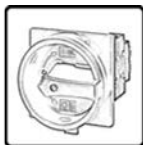
When closing the machine door hand injuries can occur if they get caught.

- To close the machine door, use the handle intended for this purpose.

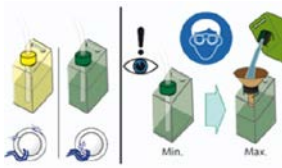
System operators must be very familiar with the Operating Instructions of the dishwashing machine. Incorrect operation may result in personal injury or material damage.



1. Ensure the water supply is available.



2. Switch on the local mains switch.



3. Check detergent and rinse aid and top up, if required.
4. Ensure that the hoses are fed down to the base of the container.



Note

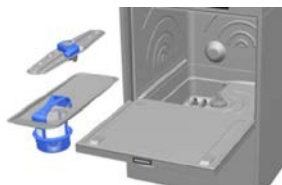
If there is air in the hoses, the automatic dosing will not function correctly. The relevant pipe must be ventilated, see section "Ventilating the pipes" on page 53.



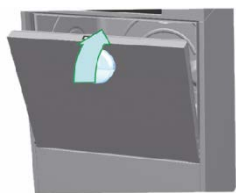
Operation/use



5. Open machine door.



6. Insert filter and washing systems.



7. Close machine door.



Operation/use

9.3.2 Refill of internal storage container



Warning

Danger of injury from contact with chemicals

Detergent and rinse aid result in damage to health if in contact with skin or eyes or if swallowed.

- Use eye protection.
- Wear protective gloves.
- Contact a physician immediately if chemicals or water containing chemicals (rinse water) are swallowed.

1. If required, activate the machine display by pressing the Service/WakeUp key.



The machine indicates the shortage of detergent and/or rinse aid on the display. The internal storage containers must be topped up.



2. Press the illuminated blue button in the lower front panel.
3. Open front panel.



Dosing recommendation

4. Pour the appropriate chemical for dosing into the measuring cup provided.

Maximum filling quantity	M-iClean US	M-iClean UM/UM+/UL
Detergent	400 ml	1000 ml
Rinse aid	80 ml	150 ml



5. Use the funnel to help pour the chemical carefully into the machine until the storage container is full. Check the fill level via the fill level window (1).
 - Blue: rinse aid
 - Transparent: detergent
6. Rinse the funnel and measuring cup.
7. Close the lower front panel using the push button.



Operation/use

9.3.3 Replacing the external storage container



Warning

Danger of injury from contact with chemicals

Detergent and rinse aid result in damage to health if in contact with skin or eyes or if swallowed.

- Use eye protection.
- Wear protective gloves.
- Contact a physician immediately if chemicals or water containing chemicals (rinse water) are swallowed.



Note

The storage containers for detergent and rinse aid are located in close proximity to the dishwashing machine.



Note

When using a suction lance which detects whether a storage container is empty, the lack of detergent or rinse aid will be indicated on the display and at the push button for the lower front panel.

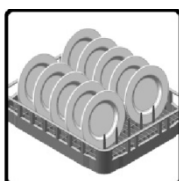
A storage container is empty.

1. Remove the suction lance from the empty container and insert it in a full container.

9.3.4 Putting away washed items



- All hollow containers must always be loaded upside down. Otherwise the water will not be drained from the wash ware and brilliant drying will not be possible.



- Place plates, trays and dishes into the baskets at an angle. The inner surfaces face upwards.



- If cutlery holders are used, always insert the cutlery pieces with the handles down.
- Mix up the spoons, knives and forks as much as possible in each cutlery basket, since similar cutlery pieces may nest together.
- Do not put too many cutlery pieces into the individual cutlery baskets.



- Do not stack crockery items on top of each other in the basket. Direct access to the wash water would be more difficult and the washing times would have to be unnecessarily long. Shorter washing with baskets which are not overfilled is more economical.



Operation/use

9.4 Start up the machine



If the display is dark, press the Wake-up key or move the door / hood.



1. Turn on the machine by pressing and holding the on/off key (for one second).

The machine is filling and heating up. The display changes depending on the process stage. The wash key is flashing.

- The display indicates **FILLING**.
- The display indicates **FILLING / HEATING**.
- When ready to operate, the display indicates **READY FOR OPERATION** and the wash key lights up permanently blue.



Note

The time required for the machine to be ready to operate depends on the temperature of the water supply and the installed boiler or tank heating capacity.

9.4.1 Select wash programme



The machine is in **READY FOR OPERATION** mode. If the display is dark, press the Wake-up key or move the door.



1. Select the desired washing programme using the confirmation key.

The symbol for the selected washing programme is displayed against a black background.



If the washing programme is changed, after approx. 3 seconds the runtime will be briefly displayed. This makes it possible to check that the correct washing programme has been selected.



Operation/use

Programme configuration















Depending on the machine type and the electricity and water supply, the programme configuration can vary. The programme configuration is shown in the following tables.

Voltage	Versions	M-iClean US			M-iClean UM			M-iClean UM+			M-iClean UL		
Programme channel		1	2	3	1	2	3	1	2	3	1	2	3
3NPE 400V Hot or cold water supply	Glasses	1	2	5	1	2	5	1	2	5	1	2	5
	Dishes	7	9	13	7	9	13	7	9	13	7	9	13
	Bistro	1	8	13	1	8	13	1	8	13	1	8	13
	Universal		-		1	9	14	1	9	14	1	9	14
Cold water supply	Cold water fi- nal rinse		-		15	16	2		-			-	
1NPE 230V Warm water supply	Glasses	1	2	5	1	2	5	1	2	5	1	2	5
	Dishes	7	9	13	7	9	13	7	9	13	7	9	13
	Bistro	1	8	13	1	8	13	1	8	13	1	8	13
	Universal		-		1	9	14	1	9	14	1	9	14
1NPE 230V Cold water supply	Glasses	3	4	6	3	4	6	3	4	6	3	4	6
	Dishes	10	12	13	10	12	13	10	12	13	10	12	13
	Bistro	3	11	13	3	11	13	3	11	13	3	11	13
	Universal		-		3	12	14	3	12	14	3	12	14



Operation/use

M-iClean US

Programme number*	Programme runtime	Boiler temperature	Tank temperature	Pressure level	Rinse water quantity	Programme symbol
	[s]	[°C]	[°C]	[1-3]	[l]	
1	90	65	60	1	1.9	
2	120	65	60	2	2.4	
3	180	65	60	1	1.9	
4	180	65	60	2	2.4	
5	180	65	60	3	2.4	
6	240	65	60	3	2.4	
7	90	81	60	1	1.9	
8	120	81	60	2	2.4	
9	120	81	60	2	2.4	
10	180	81	60	1	1.9	
11	180	81	60	2	2.4	
12	180	81	60	2	2.4	
13	240	81	60	3	2.4	
14 - 25	90	65	60	1	1.9	

* Programme configuration, see page 36.



Operation/use

M-iClean UM / UM+

Programme number*	Programme runtime	Boiler temperature	Tank temperature	Pressure level	Rinse water quantity	Programme symbol
	[s]	[°C]	[°C]	[1-3]	[l]	
1	90	65	60	1	2.4	
2	120	65	60	2	3	
3	180	65	60	1	2.4	
4	180	65	60	2	3	
5	180	65	60	3	3	
6	240	65	60	3	3	
7	90	81	60	1	2.4	
8	120	81	60	2	3	
9	120	81	60	2	3	
10	180	81	60	1	2.4	
11	180	81	60	2	3	
12	180	81	60	2	3	
13	240	81	60	3	3	
14	240	81	60	3	3	
15*	90	2	55	1	3.2	
16*	120	2	55	2	3.2	
17 - 25	90	65	60	1	2.4	

* Programme configuration, see page 36.

** Cold water rinse only for M-iClean UM



Operation/use

M-iClean UL

Programme number*	Programme runtime	Boiler temperature	Tank temperature	Pressure level	Rinse water quantity	Programme symbol
	[s]	[°C]	[°C]	[1-3]	[l]	
1	90	65	60	1	2.8	
2	120	65	60	2	3.2	
3	180	65	60	1	2.8	
4	180	65	60	2	3.2	
5	180	65	60	3	3.2	
6	240	65	60	3	3.2	
7	90	81	60	1	2.8	
8	120	81	60	2	3.2	
9	120	81	60	2	3.2	
10	180	81	60	1	2.8	
11	180	81	60	2	3.2	
12	180	81	60	2	3.2	
13	240	81	60	3	3.2	
14	240	81	60	3	3.2	
15 - 25	90	65	60	1	2.8	

* Programme configuration, see page 36.



Operation/use

9.4.2 Start washing process



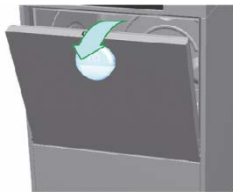
⚠ Beware

Danger of injury when closing the machine door

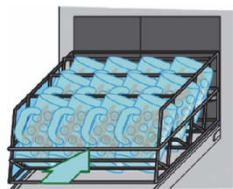
When closing the machine door hand injuries can occur if they get caught.

- To close the machine door, use the handle intended for this purpose.

1. Clear the items to be washed (removing any large food residues, napkins, tooth picks, lemon zest etc.).
2. Put the items to be washed into the basket.



3. Open machine door.



4. Insert the basket into the dishwashing machine.
5. Centre the basket correctly in the basket holder.



6. Close machine door.



7. Ensure that the correct programme has been selected, see section "Select wash programme" on page 35.
8. Press the wash key.



The machine washes automatically and switches the programme off after completion. The display indicates the programme's progress.

The cycle time may differ from the set programme running time, if the programme running time is not sufficient to heat up the fresh water to the pre-set temperature. In this case, the cycle time is automatically extended.



Operation/use

9.4.3 Emptying the dishwasher

Beware

Danger of burns and scalding due to hot rinse water, washware and machine parts

Contact with hot rinse water, washware and machine parts can result in burns/scalding of the skin.



- Wear protective gloves if necessary.
- Let the washware cool down before emptying, if necessary.
- Let the machine cool down before touching machine parts, if necessary.
- Never open the machine door or hood during a wash cycle.
- Only open and close the hood/door using the designated handle(s).

Beware

Grazing finger on fanwheel if still running

In the case of machines with heat recovery, the tank cover is located behind a fanwheel which continues running after the programme has ended.



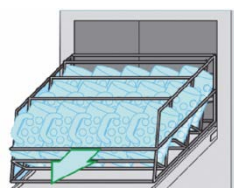
- Do not grip using fanwheel when door is open (tank cover to rear)



At the end of the programme, the colour of the wash key is changing from green to blue.



1. Open machine door.



2. Carefully remove the basket.



3. Close machine door.



Operation/use

9.5 Malfunctions

Despite careful construction, minor malfunctions may occur, which are usually easy to fix. Possible errors and troubleshooting measures for the operator are described in the following.

If the described operational problems occur repeatedly, the cause must be identified.

Common malfunctions

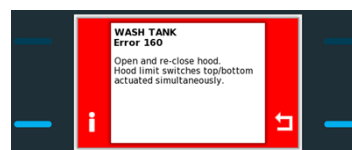
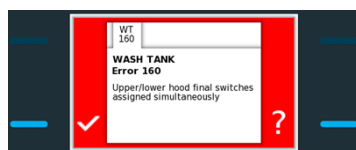
Malfunction	Possible cause	Remedy
Machine does not fill	No water present	Open the stop valve
	Dirt trap clogged	Clean the dirt trap
	Machine door open	Close machine door
Final rinse does not spray	No water present	Open the stop valve
	Dirt trap clogged	Clean the dirt trap
Streaks / smears on the washed items	Unsuitable rinse aid	Change product
	Incorrect dosing quantity	Adjust dosing quantity
Strong formation of foam in the wash tank	Manual dishwashing detergent used	Do not use a foaming manual dishwashing detergent for pre-cleaning or for cleaning the machine. Foam can cause malfunctions in the dishwashing machine and a poor wash.
	Unsuitable detergent	Change product
	Unsuitable rinse aid	Change product

As a rule, faults that are not described herein require assistance from an authorised service technician. Please contact your factory representative or authorised dealer.



Operation/use

9.5.1 Messages



When a malfunction occurs, a grey or red message is shown on the display depending on the nature of the malfunction.

- Grey messages can be acknowledged using the relevant confirmation key.
- Red messages usually require the deployment of an authorised service technician!

No.	Display text	Note / possible cause	Measures / remedial action
1	Bottom pan leakage	<ul style="list-style-type: none"> • There is a leak • Minimum signal duration 5 seconds to activation 	<ul style="list-style-type: none"> • Not possible to continue working • Call a service technician!
6	Programme cancelled prematurely	<ul style="list-style-type: none"> • On/off key activated during wash programme • Door was opened during the rinse process 	<ul style="list-style-type: none"> • Start rinse process again
7	Door not closed	<ul style="list-style-type: none"> • Door is open • Magnetic switch defective or adjusted incorrectly • Cable breakage • Plug connection of the wiring 	<ul style="list-style-type: none"> • Close the door
8	Door switch signals different: Switch left: "1" Switch right: "0"	<ul style="list-style-type: none"> • Corresponding magnetic switches/magnets depending on door position • Cable breakage • Plug connection of the wiring 	<ul style="list-style-type: none"> • Call a service technician! • Limited possibility of continuing working
9	Door switch signals different: Switch left: "0"; Switch right: "1"	<ul style="list-style-type: none"> • Corresponding magnetic switches/magnets depending on door position • Cable breakage • Plug connection of the wiring 	<ul style="list-style-type: none"> • Call a service technician! • Limited possibility of continuing working
11	Carry out maintenance	<ul style="list-style-type: none"> • Carry out maintenance 	<ul style="list-style-type: none"> • Possible to continue working • Call a service technician!
12	Access code wrong!	<ul style="list-style-type: none"> • Input code not available in internal table 	<ul style="list-style-type: none"> • Correct entry code



Operation/use

No.	Display text	Note / possible cause	Measures / remedial action
14	Heat lost through open door!	<ul style="list-style-type: none"> Door is open - heat energy is escaping 	<ul style="list-style-type: none"> Close door to prevent energy loss
15	Abort heat recovery	<ul style="list-style-type: none"> On/off key was pressed during heat recovery 	<ul style="list-style-type: none"> Allow the heat recovery process to run to completion
17	Empty Close the door	<ul style="list-style-type: none"> Door is open, thus preventing the automatic emptying from continuing 	<ul style="list-style-type: none"> Close the door
18	Water change Close the door	<ul style="list-style-type: none"> Door is open, thus preventing the automatic water change from continuing 	<ul style="list-style-type: none"> Close the door
100	First fill error	<ul style="list-style-type: none"> Reference level in tank not reached in time during filling. Local water supply inadequate. Level detection defective 	<ul style="list-style-type: none"> Not possible to continue working Call a service technician!
101	Draining level not reached	<ul style="list-style-type: none"> Drainage sieve clogged Drain pump clogged/defective Level detection defective 	<ul style="list-style-type: none"> Check the drainage sieve, clean if necessary Call a service technician if needed
102	Safety level does not drop below level after time	<ul style="list-style-type: none"> Drainage sieve clogged Drain pump clogged/defective Level detection defective There is a blockage 	<ul style="list-style-type: none"> Not possible to continue working Shut off local water supply Switch off the circuit breakers Call a service technician!
103	Tank temperature not reached	<ul style="list-style-type: none"> Tank set temperature is not reached Temperature probe defective Heating defective I/O circuit board is defective 	<ul style="list-style-type: none"> Possible to continue working Call a service technician
104	Over-temperature tank	<ul style="list-style-type: none"> Maximum tank temperature exceeded Contactor / relay on I/O circuit board is sticking Temperature sensor defective Plug-contact for temperature sensor high resistance 	<ul style="list-style-type: none"> Switch off the building-side fuses Call a service technician!



Operation/use

No.	Display text	Note / possible cause	Measures / remedial action
106	Wash time increase insufficient	<ul style="list-style-type: none"> Tank heating defective Boiler heating defective Supply valve defective 	<ul style="list-style-type: none"> If the error message reoccurs, call a service engineer
107	No signal from tank level sensor	<ul style="list-style-type: none"> Plug connection of the wiring Cable breakage in wiring Pressure sensor defective 	<ul style="list-style-type: none"> Not possible to continue working Call a service technician!
108	Tank temperature sensor shortcut	<ul style="list-style-type: none"> Short-circuit in the wiring Moisture in the connector Temperature sensor defective 	<ul style="list-style-type: none"> Not possible to continue working Call a service technician!
109	Temp. sensor wash tanks interrupted	<ul style="list-style-type: none"> Connector incorrectly connected; crimp connection insufficient Cable breakage in wiring 	<ul style="list-style-type: none"> Not possible to continue working Call a service technician!
110	Temperature monitoring drain pump Notify service technician!	<ul style="list-style-type: none"> The discharge pump is possibly blocked Transport of waste water no longer possible Operation not possible until the blockage is removed Level detection defective 	<ul style="list-style-type: none"> Shut off local water supply Switch off the building-side fuses Call a service technician!
111	Water loss in wash tank	<ul style="list-style-type: none"> Ventilating valve clogged Leakage in level control system 	<ul style="list-style-type: none"> If the error message reoccurs, call a service engineer!
112	Forced drainage due to permanently filled wash tank	<ul style="list-style-type: none"> The tank had not been drained for a long period of time 	<ul style="list-style-type: none"> Change the water or drain the machine at least once a day
114	Fine/coarse sieve missing	<ul style="list-style-type: none"> Fine/coarse sieve <ul style="list-style-type: none"> not present inserted incorrectly Cable breakage Sensor defective Magnet missing 	<ul style="list-style-type: none"> Correctly insert fine/coarse sieve If the error message reoccurs, call a service engineer
115	Drain pump active after triggering of the safety level	<ul style="list-style-type: none"> Tank overfilled Supply valve does not close Safety level exceeded 	<ul style="list-style-type: none"> Possible to continue working



Operation/use

No.	Display text	Note / possible cause	Measures / remedial action
117	Top wash system blocked/missing	<ul style="list-style-type: none"> Rotating arm system above 	<ul style="list-style-type: none"> Ensure top wash arm system can move freely
118	Bottom wash arm system blocked/missing	<ul style="list-style-type: none"> Rotating arm system below 	<ul style="list-style-type: none"> If applicable, insert wash arm system If needed, remove dirt particles and ferrous metal particles from the magnet
127	Temperature increase not reached	<ul style="list-style-type: none"> Tank set temperature/temperature increase is not reached Temperature probe defective Heating defective I/O circuit board is defective 	<ul style="list-style-type: none"> If the error message reoccurs, call a service engineer
200	Boiler level during filling not reached early enough	<ul style="list-style-type: none"> No or insufficient water inlet water supply 	<ul style="list-style-type: none"> Open the local water supply Check pre-filter/sieve and clean, if necessary
201	Level not reached after end of maximum final rinse duration	<ul style="list-style-type: none"> Booster pump without function Level detection defective Final rinse system clogged 	<ul style="list-style-type: none"> Not possible to continue working Call a service technician!
203	Final rinse temperature not reached	<ul style="list-style-type: none"> Boiler set temperature is not reached Temperature probe defective Heating defective 	<ul style="list-style-type: none"> Call a service technician!
204	Over-temperature boiler	<ul style="list-style-type: none"> Maximum boiler temperature exceeded, check parameters Contactors / relay on I/O circuit board is sticking Temperature sensor defective Plug-contact for temperature sensor high resistance 	<ul style="list-style-type: none"> Switch off the building-side fuses Call a service technician!
205	Maximum final rinse cycles insufficient	<ul style="list-style-type: none"> Insufficient rinse aid quantity for functional level in the water tank. If needed, Water absorption by washed items. 	<ul style="list-style-type: none"> Sort the items to be washed correctly Possible to continue working



Operation/use

No.	Display text	Note / possible cause	Measures / remedial action
206	Wash time increase final rinse insuffi- cient	<ul style="list-style-type: none"> • Temperature probe defective • Boiler heating defective • Supply valve does not close 	<ul style="list-style-type: none"> • Check boiler heating, replace if necessary. • Run times not adjusted in line with heating capacity.
207	No signal from boiler level sensor	<ul style="list-style-type: none"> • Plug connection of the wiring • Cable breakage in wiring • Pressure sensor defective 	<ul style="list-style-type: none"> • Not possible to continue work- ing • Call a service technician!
208	Boiler temperature sensor short-circuit	<ul style="list-style-type: none"> • Short-circuit in the wiring • Moisture in the connector • Temperature sensor defective 	<ul style="list-style-type: none"> • Not possible to continue work- ing • Call a service technician!
209	Temp. sensor boiler body interrupted	<ul style="list-style-type: none"> • Connector incorrectly con- nected; crimp connection insuffi- cient • Cable breakage in wiring 	<ul style="list-style-type: none"> • Not possible to continue work- ing • Call a service technician!
212	Forced drainage due to permanently filled boiler	<ul style="list-style-type: none"> • The boiler had not been drained for a long period of time 	<ul style="list-style-type: none"> • Change the water or drain the machine at least once a day
213	Booster Pump or air catch defective	<ul style="list-style-type: none"> • Booster pump without function • Level detection defective • Final rinse system clogged 	<ul style="list-style-type: none"> • Check booster pump • Check the air trap, hoses and sensor for level detection • Check the rinse aid system and clean, if required
301	Shortage of rinse aid	<ul style="list-style-type: none"> • Rinse aid empty • Error measurement electrode 	<ul style="list-style-type: none"> • Refill / replace container • For external storage containers, check the position of the suc- tion lance and clean, if neces- sary
311	Shortage of deter- gent	<ul style="list-style-type: none"> • Detergent empty • Error measurement electrode 	
330	Dosage leakage	<ul style="list-style-type: none"> • Leakage in dosing system 	<ul style="list-style-type: none"> • Not possible to continue work- ing • Call a service technician!
406	Advance report car- tridge exhausted	<ul style="list-style-type: none"> • Cartridge soon exhausted 	<ul style="list-style-type: none"> • Have the replaceable cartridge ready • Replace when notification 407 is given
407	Change deminerali- sation cartridge	<ul style="list-style-type: none"> • Demineralisation cartridge is ex- hausted 	<ul style="list-style-type: none"> • Change demineralisation car- tridge



Operation/use

No.	Display text	Note / possible cause	Measures / remedial action
408	Change osmosis system pre-filter	<ul style="list-style-type: none"> Pre-filter is exhausted 	<ul style="list-style-type: none"> Change pre-filter
410	Water supply osmosis module faulty	<ul style="list-style-type: none"> No or insufficient water inlet water supply 	<ul style="list-style-type: none"> Open water inlet valve Check pre-filter/sieve and clean or replace (if applicable)
500	Energy optimization active	<ul style="list-style-type: none"> The energy optimisation was demanded externally Restricted availability of heating capacity for machine Longer runtimes possible 	<ul style="list-style-type: none"> No action required
501	Energy optimization active Tank temperature not reached	<ul style="list-style-type: none"> Tank set temperature is not reached Temperature probe defective Heating defective I/O circuit board is defective 	<ul style="list-style-type: none"> Possible to continue working Call a service technician!
502	Energy optimization active Tank wash time increase insufficient	<ul style="list-style-type: none"> Tank heating defective Boiler heating defective Supply valve defective 	<ul style="list-style-type: none"> Possible to continue working If the error message reoccurs, call a service engineer
503	Energy optimisation active Temperature increase not reached	<ul style="list-style-type: none"> Tank set temperature/temperature increase is not reached Temperature probe defective Heating defective I/O circuit board is defective 	<ul style="list-style-type: none"> If the error message reoccurs, call a service engineer
504	Energy optimization active Final rinse temperature not reached	<ul style="list-style-type: none"> Boiler set temperature is not reached Temperature probe defective Heating defective I/O circuit board is defective 	<ul style="list-style-type: none"> Call a service technician!
505	Energy optimization active Wash time increase final rinse insufficient	<ul style="list-style-type: none"> Temperature probe defective Boiler heating defective Supply valve does not close 	<ul style="list-style-type: none"> If the error message reoccurs, call a service engineer



Operation/use

No.	Display text	Note / possible cause	Measures / remedial action
880	Communication with SMART-WIRE-node addr. 1	<ul style="list-style-type: none"> SI1 board defective (ID-Chip) 	<ul style="list-style-type: none"> Not possible to continue working Switch off the building-side fuses Call a service technician!
892	Communication with SMART-WIRE-node addr. 13	<ul style="list-style-type: none"> SI31 board defective (lighting board) 	<ul style="list-style-type: none"> Possible to continue working Call a service technician!
901	Communication with CAN bus address 1	<ul style="list-style-type: none"> Communication cable not plugged in CAN address switch set incorrectly No power supply for I/O board I/O circuit board is defective 	<ul style="list-style-type: none"> Not possible to continue working Call a service technician!
902	Communication with CAN bus address 2		
960	EEPROM error	<ul style="list-style-type: none"> EEPROM access fault 	<ul style="list-style-type: none"> Not possible to continue working Call a service technician!
963	Access fault Bluetooth	<ul style="list-style-type: none"> An error occurred when accessing the Bluetooth module and, as a consequence, it may be unavailable 	<ul style="list-style-type: none"> Acknowledge the message Possible to continue working Call a service technician!
969	Buffer battery critical	<ul style="list-style-type: none"> If a power interruption occurs, the date and time are undefined 	<ul style="list-style-type: none"> Acknowledge the message Limited possibility of continuing working Call a service technician!
971	Operating panel will be re-initialised	<ul style="list-style-type: none"> Plug connection open Glass panel not responding. 	<ul style="list-style-type: none"> If the error message reoccurs, call a service engineer

As a rule, faults that are not described herein require assistance from an authorised service technician. Please contact your factory representative or authorised dealer.



Operation/use

9.6 Shut down the machine

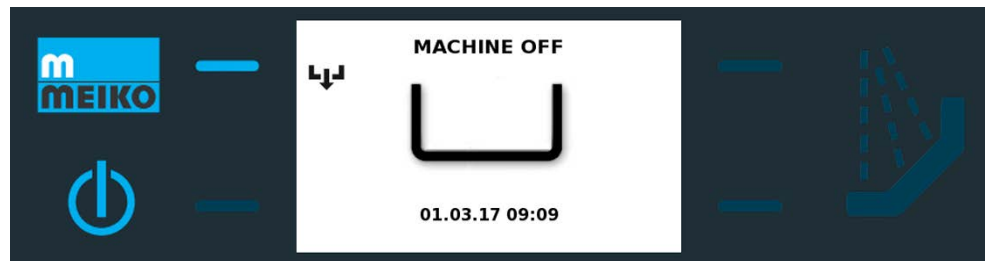


1. Press on/off key.



2. Confirm request with the relevant confirmation key.

The machine carries out a self-clean.



After the operation has finished, the machine automatically switches into OFF mode.



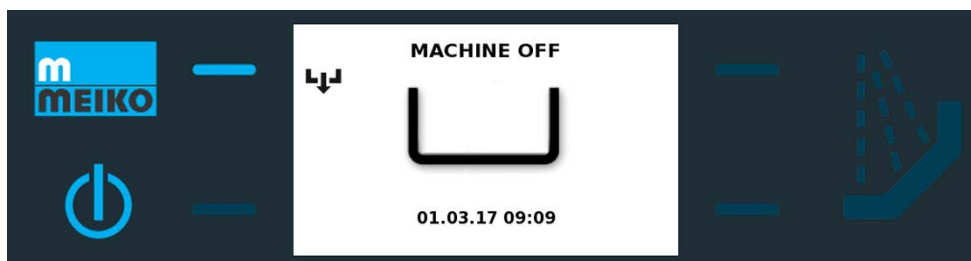
Operation/use

9.7 Change authorisation level

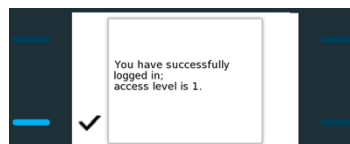
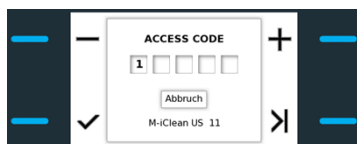


Note

The machine must be in OFF mode.



1. Press and hold the Service access key for approximately three seconds.



2. Enter the service code for the required authorisation level.



3. Acknowledge the message.

Authorisation level 1 – user configuration level

Read settings (**service code: 10000**)

The operator can view the user settings.

Read / modify settings (**service code 10001**)

The operator can carry out all functions required for normal operation and configure the settings.

Authorisation level 4 – extended configuration level

Read settings (**service code: 40000**)

The operator can view the extended settings.

Read / modify settings (**service code 40044**)

In addition to the functions and settings for authorisation level 1, the operator can view/edit all the relevant parameters for the dosing equipment. The i-menu shows all variable parameters in the corresponding tabs (dosing system, wash programs).


















Operation/use



Note

Certain menu functions in i-menu and the action menu have to be released by an authorised service technician before use by the operator (reset counter, etc.).






i-menu

	Symbol	Level	Description
Languages		1, 4	Set display language
Wash tank		1, 4	Set automatic hood opening and de-scaling parameters View status
Final rinse		1, 4	View status
Chemicals		1	Set dosage levels for detergent and rinse aid
Water treatment		1	Set hardness and treatment parameters
Heat recovery		1	No user settings
Energy optimisation		1, 4	No user settings
Global		1	Set wash programme channels and Bluetooth communication
Operating times		1.4	View batches, operating times, etc.
Operating log		1.4	View archived operating times, events, etc.
Wash programme		4	Set quantity of rinse aid and fine tune dosage
Settings		1.4	Set date/time, reset counter, notification settings
General		1.4	View software version, machine serial number, machine type
Dosing system		4	Dosing parameters for the dosing system



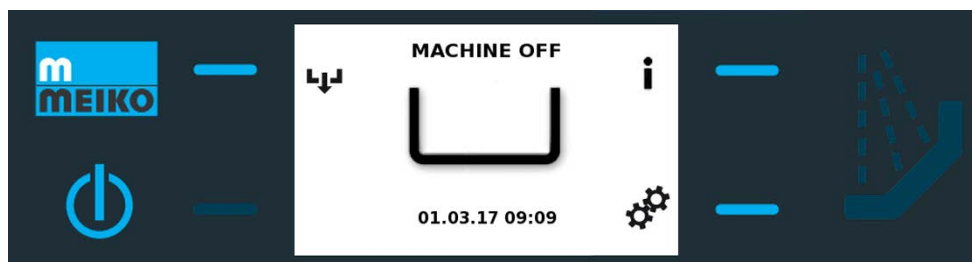
Operation/use

Action menu

	Symbol	Level	Description
Bleed detergent pipelines		1, 4	Starts detergent or rinse aid dosage pump to bleed the conveyor pipelines when required e.g. when the storage containers are empty during operation.
Bleed rinse aid pipelines		1, 4	
Manually start water change		1, 4	If automatic wash tank water regeneration is insufficient, an additional water change may be necessary.
Descale		1, 4	Starts descaling programme.

9.8 Ventilating the pipes

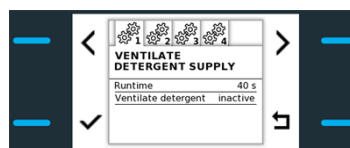
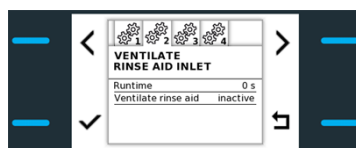
The detergent or rinse aid pipes must be ventilated, if air is sucked in from the dosing equipment. This occurs if a storage container is completely emptied during operation, or if one of the suction lances is not positioned right down to the base of the container.



1. Switch to authorisation level 1 **User configuration level**, see section "Change authorisation level" on page 51.



2. Call up the action menu using the relevant confirmation key.



3. Select the required submenu.

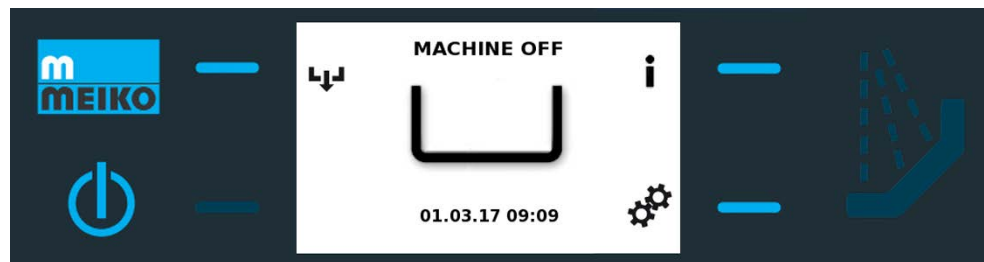


4. Start the ventilating procedure by using the relevant confirmation key.



Operation/use

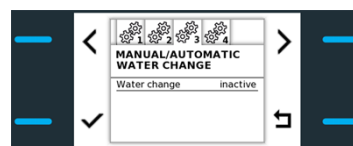
9.9 Perform a manual water change



1. Switch to authorisation level 1 **User configuration level**, see section "Change authorisation level" on page 51.



2. Call up the action menu using the relevant confirmation key.



3. Select the required submenu.



4. Start the water change by using the relevant confirmation key.

9.10 Reset the counter



Note

In order to be able to reset counters in security access level 1, this function must be separately enabled by an authorised MEIKO service technician. Resettable counters:

- Maintenance counter
- Reverse osmosis (UO) filter insert



1. Switch to security authorisation level 1 **user configuration level**, see section "Change authorisation level" on page 51.



2. Call up the i-menu using the relevant confirmation key.



3. Switch to the **Settings** tab page.



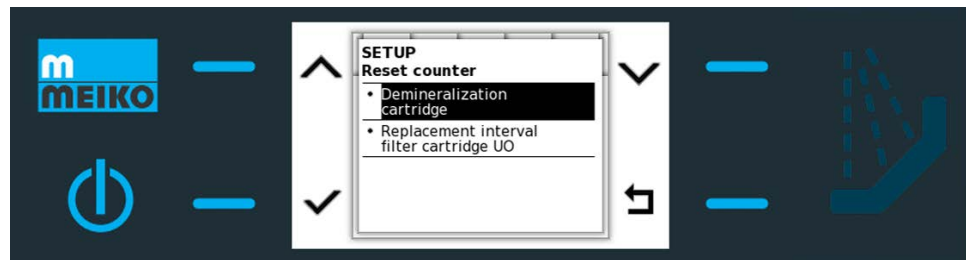
4. Select the item **reset counter**.



5. Confirm the selection.



Operation/use



- ✓ 6. Select the counter to be reset.
- ✓ 7. Confirm the selection to reset the values.



Note

The counters for the water treatment options can also be reset via security authorisation level 4 **Extended configuration level**, see section "Change authorisation level" on page 53.

9.11 Activate/deactivate Bluetooth interface



Note

The Bluetooth interface allows the service technician to read the machine's data and is used for software updates. It is switched on as standard. If necessary, the interface can be deactivated by the user.



1. Switch to security authorisation level 1 **user configuration level**, .
- i 2. Call up i-menu using the relevant confirmation key.
- ⚙ 3. Switch to the **global** tab.
- ✓ 4. Select the item **parameters**.
- ✓ 5. Confirm the selection.
- ✓ 6. Select the item **release Bluetooth communication**.
- ✓ 7. Confirm the selection.
- ✓ 8. Select the item **no**.
- ✓ 9. Confirm the selection.



Maintenance and cleaning

10 Maintenance and cleaning



⚠ Warning

Danger to life from electric shock

Contact with live electrical parts can lead to serious injury or death.

- Work at or repairs to the electrical system must be conducted by a qualified electrician who complies with the electrotechnical rules.
- Disconnect the machine from the power supply before working on the electrical system. To do this, turn the local mains switch to **OFF** and ensure that it can't be switched back on again.



⚠ Warning

Danger to life from electric shock if cover panels are open

If the machine is operated without cover panels, electrified parts are freely accessible. Contact with these parts can lead to serious injury or death.

- Disconnect the machine from the power supply before opening the cover panels. To do this, turn the local mains switch to **OFF** and ensure that it cannot be switched back on again.
- Attach all cover panels before placing the machine back in operation.



⚠ Warning

Danger of injury due to entry into a danger zone

Unauthorised persons might be in or enter the danger zone during transport, assembly, commissioning, maintenance and repair work. This can lead to injuries.

- Only qualified persons should perform work at and with the machine.
- Remove unauthorised persons from the danger zone.
- Block off danger area and mark it for third parties.
- Never remove or disable safety devices on the machine.



Caution

Environmental damage due to improper disposal of liquids

Environmentally hazardous liquids (e.g. grease and oils, hydraulic oils, coolants, cleaning agents containing solvents etc.) may be used during work on and with the machine. Improper disposal of these liquids can damage the environment.

- Always capture, store and transport liquids in suitable containers.
- Never mix liquids.
- Dispose of liquids properly in accordance with local requirements.



Maintenance and cleaning

10.1 Maintenance



Note

Maintenance work must only be carried out by an authorised in-house technician or an authorised service technician.

Cleaning work must be carried out by trained operators.

The machine has been designed to keep the need for cleaning, care and maintenance to a minimum.

However, for reliable, safe and long-term function of the machine, and in the interest of hygiene and cleanliness, correct care and maintenance is necessary.

We recommend concluding a maintenance contract with our authorised distributor in order to ensure a long service life of the dishwashing machine.

A functional test on all safety systems of the machine is carried out during every regular maintenance.

- Comply with the maintenance intervals prescribed in these operating instructions.
- Please note the maintenance instructions for the individual components in these operating instructions.
- Carefully dispose of any cleaning products that could harm the environment.



Maintenance and cleaning

10.2 Maintenance table



Note

Maintenance work must **only** be carried out by MEIKO authorised staff!

Maintenance work Visual inspection	Checked	Cleaned	Replaced	Maintenance specification
1. Error memory				
Check error memory for unusual events.				annually
2. Electrical installation				
Re-tighten all screw connections (e.g. heating contactors, control fuse), check plug/terminal connections.				annually
Carry out a visual check on all electrical equipment (e.g. switches, cables, plugs, etc.).				annually
Check tank and boiler heating.				annually
3. Pumps				
Check pumps for leaks and any visible damage.				annually
Check pumps for pump rotor noise and function.				annually
4. Wash tank, wash and final rinse system				
Functional and visual inspection of the washing and final rinse arms.				annually
Replace sealing ring wash arm.				annually
Check the air trap tank.				annually
Check the level control tank is not leaking.				annually
Check sieves and filter.				annually
Check that the wash and final rinse system is not leaking.				annually
Check water level in tank.				annually
Check door seal.				annually
Check seal on coarse sieve/drain pump.				annually
Replace flap ventilating valve.				annually
5. Housing				
Check housing, tank and cladding for damage and correct operation.				annually
Check door and door counter balance for correct operation.				annually



Maintenance and cleaning

Maintenance work Visual inspection	Checked	Cleaned	Replaced	Maintenance specification
6. Fresh water installation				
Check valves, clean dirt trap.				annually
Check that the boiler level control/ air trap are not leaking.				annually
Check boiler, hoses, clamps, plastic parts and seals.				annually
Check emptying the boiler.				annually
7. Waste water installation				
Check operation of drain pump during drainage.				annually
Check for leaks.				annually
8. Detergent dosing				
Replace peristaltic hose.				annually
Check for leaks.				annually
Check function.				annually
9. Rinse aid dosing				
Replace peristaltic hose.				annually
Check for leaks.				annually
Check function.				annually
10. Test run with a function test on the whole machine				
Check filling and heating until it is ready for operation.				annually
Visual inspection of the entire machine for leaks.				annually
Check results of test wash and rinse.				annually
Brief instructions for new personnel.				annually
11. Options				
Integrated reverse osmosis system (if available)				
Visual check complete system for leaks.				annually
Change pre-filter				every six months
Check fine sieve insert and throttle in concentrate line.				annually
Check correct function of concentrate drain and check for deposits.				annually
Fill out separate log, "Certificate of Commissioning".				annually



Maintenance and cleaning

Maintenance work					Checked	Cleaned	Replaced	Maintenance specification
Visual inspection								
Partial demineralisation (PD) / Full demineralisation (FD) (if present)								
Check function.								annually
Air Concept (if present)								
Function check fan.								annually
Function check solenoid valve in distributor.								annually
Visual inspection and leakage test.								annually
12. Water quality, temperature								
Untreated water	°C	°dH	°CH	µS/cm				annually
Water quality after water treatment (if available)		°C	°dH	µS/cm				annually
13. Electrical safety check (certificate is optional)								
Visual inspection								annually
Check the protective earth conductor								annually
Insulation resistance measurement								annually
Protection conductor current measurement								annually
14. Stored data machine control								
Read stored data and send to MEIKO Offenburg!								annually

10.3 Daily cleaning



⚠ Beware

Danger of burns and scalding due to hot rinse water, washware and machine parts

Contact with hot rinse water, washware and machine parts can result in burns/scalding of the skin.

- Wear protective gloves if necessary.
- Let the washware cool down before emptying, if necessary.
- Let the machine cool down before touching machine parts, if necessary.
- Never open the machine door or hood during a wash cycle.
- Only open and close the hood/door using the designated handle(s).



Maintenance and cleaning

Caution

Material damage due to water ingress

Electrical cables and electronic components can be damaged if they come into contact with water.

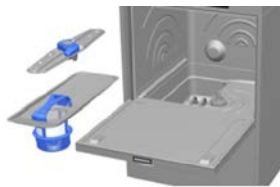


- The dishwashing machine, switch cabinets and other electrical components must **never** be sprayed with a hose or high pressure cleaner.
- Make sure that no water can enter the machine unintentionally.
- If installed at ground level, **never** flood the surrounding room.

The machine is emptied, see section "Shut down the machine" on page 50.



1. Open machine door.



2. Remove filter and washing systems.



3. Remove all food residues which are stuck to the tank, the tank heater and the filters using a brush.
4. Remove the washing and rinse arm and rinse thoroughly under running water. When doing this, pay particular attention to the nozzles!

Do not use a foaming manual dishwashing detergent for pre-cleaning or for cleaning the machine. Foam causes malfunctions and can result in a poor wash.



5. To ensure that the sensor detects the rotation of the washing arm, remove all dirt particles and ferrous particles which are sticking to the magnet (1).



6. Clean the inner chamber of the tank.
7. Inspect the main pump filter for contamination daily and clean as necessary. To clean, remove the filter and rinse thoroughly under running water.
8. Reinstall **all** parts.



Maintenance and cleaning

10.4 Cleaning the stainless steel surfaces

Caution

Material damage due to incorrect cleaning

Cleaning of parts made of stainless steel with unsuitable cleaning agents, care products and cleaning utensils leads to damage, deposits or discolourations on the machine.

- Never use aggressive cleaning or scouring agents.
- Never use cleaning agents that contain hydrochloric acid or bleaches based on chlorine.
- Do not use cleaning utensils previously used to clean non-stainless steel.

Caution

Material damage due to aggressive cleaning products

The use of aggressive cleaning and care products near the machine can cause damage to the machine due to their fumes.

- Make sure that the cleaning and care products cannot have direct contact with the machine.
- Do not use aggressive cleaning agents (e.g. aggressive tile cleaner) to clean the surrounding area.
- Please observe the notes on the product packaging.
- In case of uncertainty, request information from the suppliers of these products.

We recommend that, when required, the stainless steel surfaces are cleaned exclusively using cleaning and care products that are suitable for stainless steel.

- Lightly soiled parts can be cleaned with a soft and possibly damp cloth or sponge. For moistening we recommend only using demineralised water.
- In order to prevent limescale, we recommend wiping the surfaces thoroughly dry after cleaning.



Maintenance and cleaning

10.5 De-scaling



Warning

Danger of injury from contact with acids

Descaling agents can cause damage to health if they come into contact with skin or eyes or are swallowed.

- Use eye protection.
- Wear protective gloves.
- Contact a physician immediately if chemicals or water containing chemicals (rinse water) are swallowed.
- Please take note of the manufacturer's safety instructions.

Operating the machine using hard water can result in the build up of limescale deposits in the boiler and the tank interior. If this occurs, it is necessary to descale the tank interior, boiler housing, tank heating, boiler heating and the washing and rinse systems.

Using service code "40044" you can reach authorisation level 4 (see section "Change authorisation level" on page 51). Here the "descale" function (for the wash tank) can be selected from the pull-down menu.



The descaling time and temperature can be adjusted in the i-Menu under the tab "Dosing technology".

- For descaling only use products suitable for industrial dishwashing machines.

10.6 Spare parts

Please provide the following information on any query and/or when ordering spare parts:

Type:

SN:

.....

(This information can be found on the type plate.)



Dismantling and disposal

11 Dismantling and disposal

11.1 Disposal of packaging materials

All the packaging materials are recyclable. The following materials are used:

- Square timber frame
- Plastic sheeting (PE film)
- Cardboard packaging (for protecting edges)
- Packaging strap (steel strip)
- Packaging strap (plastic (PP))



Note

The square timber frame consists of untreated raw pine / spruce. In order to guard against pests, country-specific import regulations may also stipulate the use of treated wood.

11.2 Disposal after dismantling

- When you dispose of the machine (removal/scrapping), its components should be recycled in line with their materials.

The materials most commonly found when dismantling are as follows:

- Chromium-nickel steel
- Aluminium
- Copper
- Brass
- Electrical and electronic parts
- PP and other plastics

12 Abbreviations

Abbrevia- tion	Meaning
GiO	GiO module, integrated reverse-osmosis system
pH	The pH value denotes the acidity of liquids
LpA	LpA denotes the emission sound pressure levels at the workplace
dB	Decibel, unit of sound pressure level.

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The clean solution

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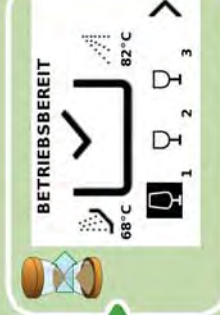
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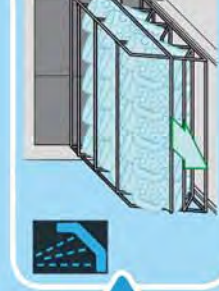
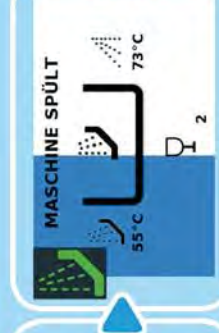
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START



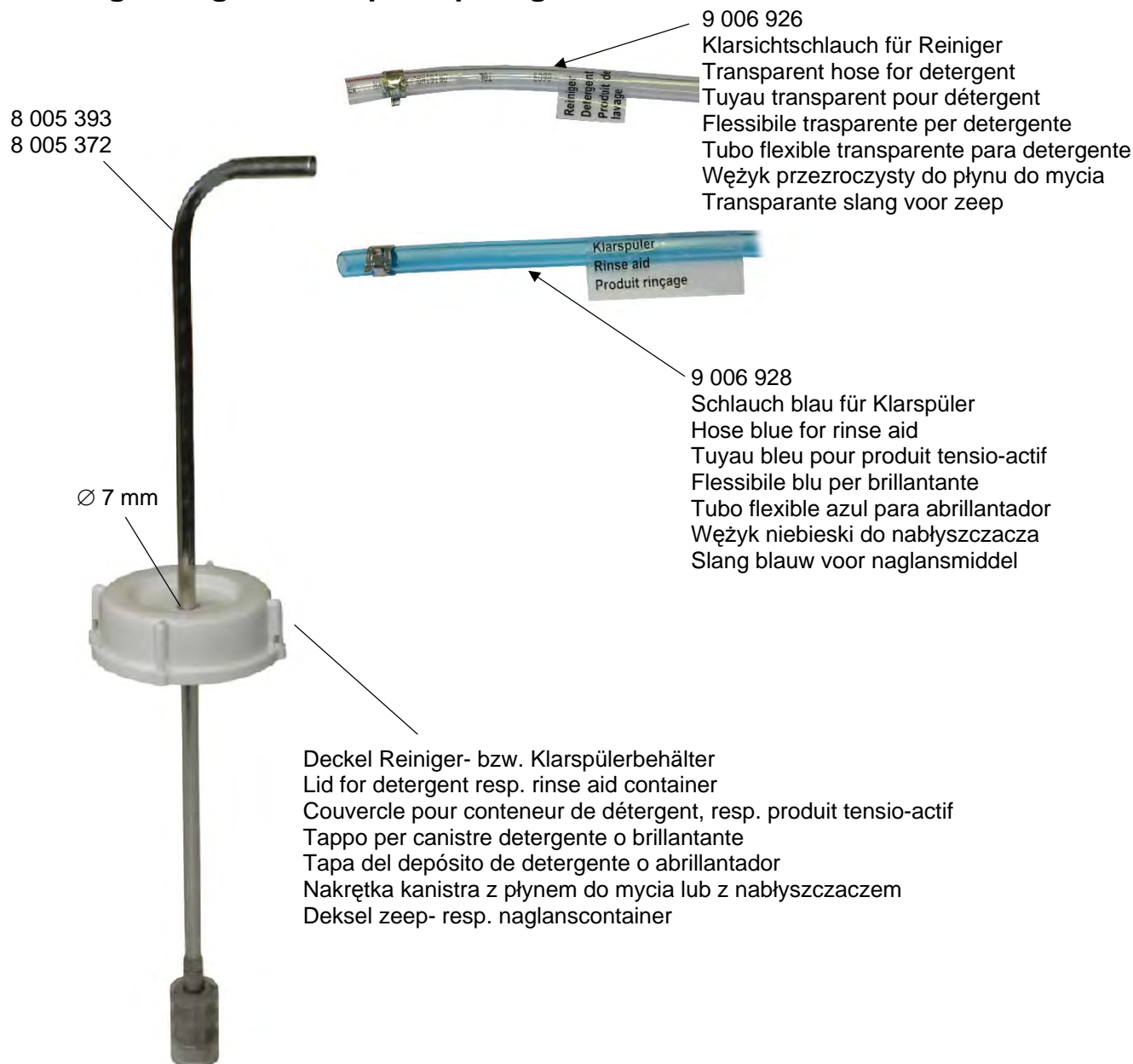
CLEAN



STOP



Saugleitung für Reiniger bzw. Klarspüler
Suction line for detergent resp. rinse aid
Conduite d'aspiration pour détergent, resp. produit tensio-actif
Tubo d'aspirazione per detergente e brillantante
Tubo de aspiración para detergente y abrillantador
Układ ssący płynu do mycia lub nabłyszczacza
Aanzuigleiding voor zeep- resp. naglansmiddel



ACHTUNG!

Saugleitung von Wärmequellen fernhalten!

ATTENTION!

Keep away suction line from heating sources!

ATTENTION!

Ecartez la conduite d'aspiration de toute source de chaleur!

ATTENZIONE!

Tenere il tubo d'aspirazione lontano da fonti di calore!

¡ATENCIÓN!

¡Mantenga el tubo de aspiración alejado de las fuentes de calor!

UWAGA!

Układ ssący należy trzymać z dala od źródeł ciepła!

LET OP!

Aanzuigleiding van warmtebronnen verwijderd houden!



Original / Original / Original / Originale / Original / Origineel / Original

EG-/EU-Konformitätserklärung

2017-11-07 (Update)

EC-/EU-Declaration of Conformity / CE-/UE-Déclaration de conformité / CE-/UE-Dichiarazione di conformità / CE-/UE-Declaración de conformidad / EG-/EU-conformiteitsverklaring / EG-/EU-försäkrän om överensstämmelse

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Company / Société / Ditta / Empresa / Fabrikant / Företag

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Seriennummer

Serial number / numéro de série / numero di serie / número de serie / volnummer / seriennummer

Spülmaschine Typ

Dishwasher model / Lave-vaisselle modèle / Lavastoviglie modello / Lavavajillas modelo / Vaatwasmachine model / Diskmaskin modell

M-iClean US

M-iClean UM

M-iClean UM+

M-iClean UL

Konformitätserklärung

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Hiermit bescheinigen wir in alleiniger Verantwortung die Konformität des Erzeugnisses mit den grundlegenden Anforderungen der folgenden EG-Richtlinien, harmonisierten Normen, nationalen Normen.

We hereby declare at our sole responsibility that the product conforms to the essential requirements of the following EC Directives, harmonized standards, national standards.

Par la présente nous certifions sous notre seule responsabilité la conformité du produit avec les exigences fondamentales des directives CE, normes harmonisées et normes nationales suivantes.

Con la presente dichiariamo sotto la nostra responsabilità la conformità del prodotto con i regolamenti basilari delle seguenti direttive CE, normative armonizzate e normative nazionali.

Por la presente declaramos bajo nuestra sola responsabilidad que nuestros productos están en conformidad con las exigencias básicas de las siguientes directivas de la CE, normas homologadas y normas nacionales.

Hiermee verklaren wij onder geheel eigen verantwoordelijkheid de conformiteit van het product met de fundamentele en gestelde eisen volgens EG-richtlijnen, geharmoniseerde normen en nationale normen.

Vi intygar härmed på eget ansvar att produkten överensstämmer med de väsentliga kraven i nedan angivna EG-direktiv, harmoniserade standarder och nationella standarder.

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Offenburg, 09.11.2017

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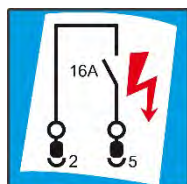
Operating instructions

Mode d'emploi

Instrucciones de uso

Gebruiksaanwijzing

Istruzione d'uso



Elektroplan

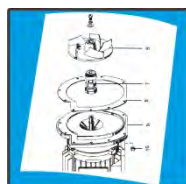
Electrical wiring diagram

Schéma électrique

Diagrama eléctrico

Elektrisch schakelschema

Schema elettrico



Ersatzteile

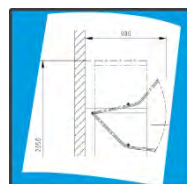
Spare parts

Pièces détachées

Piezas de repuesto

Reserveonderdelen

Lista ricambi



Montageplan

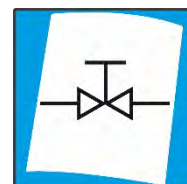
Installation drawing

Plan d'installation

Plano de montaje

Montageplan

Disegno di montaggio



Installationsplan

Installation diagram

Diagramme d'installation

Diagrama de instalación

Installatiediagramm

Schema d'installazione

