

Operating instructions

M-iClean H

Hood type dishwashing machine

Translation of the "Original operating instructions"





Type: HM HL HXL

 \prod_{i}

CAUTION – read operating instructions before using machine!



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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 / Company / Société / Ditta / Empresa / Fabrikant / Företag

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Kontakt

Contact / Contact / Contacto / Contact / Kontakt

Internet: www.meiko.de E-mail: info@meiko.de Telefon: +49(0)781/203-0

Seriennummer

Serial number / numéro de série / numero di serie / número de serie / volgnummer /

serienummer

Spülmaschine Typ

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

M-iClean HM M-iClean HL M-iClean HXL

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 na standarder.

Richtlinie / EC Directive / Directive CE / Regolamento CE / Directiva CE / EG-richtlijn

2006/42/EG / 2014/30/EU

Dokumentationsbevollmächtigter

Responsible for documentation / Responsable de la documentation / Responsable 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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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:

- · Hood type dishwashing machine
 - M-iClean HM
 - M-iClean HL
 - M-iClean HXL

2.2 Delivery contents

The delivery contents include:

- 1x M-iClean H hood type dishwashing machine
- Matching baskets for glassware, crockery and containers depending on machine model
- Connecting hoses for fresh water and waste water
- Documentation

2.3 Related documents

The following documents provide additional information to these operating instructions:

- · Installation drawing
- Circuit diagram
- Installation instructions for optional components (e.g. GiO module)
- Service handbook (only for MEIKO authorised service technicians)



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

or:

info@meiko.de

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

(Enter company's stamp or address)

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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.

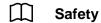
The delivered system corresponds to the state of technology and safety regulations valid at the time of production/delivery.

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

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

A 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

A 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.

A 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 ${f Note}$ designates further information on the machine / system or its application.





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
<u>^</u>	Warning of hazardous areas
4	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.
<u> </u>	Warning of hot surfaces and liquids
	Warning of the machine falling over
<u>**</u>	Warning of environmental damage
	Do not spray with water
1	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
[]i	Read the operating instructions
	Potential equalisation connection



4.2 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 operat- ing staff	MEIKO author- ised company tradesman	MEIKO author- ised service technician
Installation/assem- bly			√
Commissioning			✓
Operation, use	✓	✓	✓
Cleaning	✓	✓	✓
Check safety de- vices		✓	✓
Troubleshooting	✓	✓	✓
Troubleshooting, mechanical	✓	✓	✓
Troubleshooting, electrical		√ *	✓
Maintenance		✓	✓
Repairs		✓	✓

^{*} with training as an electrician



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.



4.3 Residual risks

Phase	Activity	Nature of the hazard	Avoidance measure
	Loading and unload- ing with forklift truck	Crushing / bumping	 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
Transport and assembly	Deposit at the installation location	Crushing / bumping	 Ensure that the ground beneath is capable of taking the load Ensure that the machine cannot tip
	Position freestanding machine	Crushing	Ensure that the freestanding ma- chine is secured against tipping
	Install electrical con- nections	Electric shock	Adhere to the accident prevention regulations
Commissioning	Filling with detergent / rinse aid	Eye injury / health risks	Wear protective eyewear / glovesAvoid contact with skin and eyes
		Getting hands caught	To close the hood, use the handle designated for this purpose
	Loading and unload-	Risk of snagging with loose clothing or items of jewellery	 Wear suitable work clothing and sturdy shoes Do not wear rings, necklaces or other pieces of jewellery
	ing the dishwashing machine	Slipping	Use non-slip floor coverings
Operation		Scalding / burning	 If necessary, allow the washware to cool down If necessary, allow machine components to cool down before touching Protective gloves recommended
	Other activities	Swallowing of water in the rinsing area	 Do not use the rinse water for food preparation Do not drink the rinse water
	Normal washing operation	Substandard wash per- formance due to failure of dosing equipment	Monitor wash performanceIf appropriate, repeat wash cycle
	Refilling with deter- gent / rinse aid	Eye injury / health risks	Wear protective eyewear / glovesAvoid contact with skin and eyes



Any maintenance work Electric shock ensure the main disconnected at cannot be turne		Before opening the covering panels, ensure the mains switch has been disconnected and secured so that it cannot be turned on again		
and cleaning	Cleaning or mainte- nance	Scalding / burning	•	Allow machine components to cool down before touching Wear protective gloves
Dismantling and disposal see transport and assembly				

4.4 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.

4.5 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



Safety

4.6 Fundamental safety and accident prevention regulations



Note

The following safety instructions aim to protect operating personnel as well as 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 may be used.
- The safety of the dishwashing machine is not impaired by the subsequent installation of a dosage system.
- Only appropriately qualified and authorised personnel operate, maintain and repair the dishwashing 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 area around the machine is assessed with reference to the risk to other people, e.g. children; people with physical, sensory or mental impairments; people lacking in knowledge or experience. In case of doubt, special optional initiation functions other than conscious, intentional operation (i.e. operation from the screen) are to be deactivated.
- 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.
- 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 appointment.
- None of the safety and warning notices affixed to the dishwashing machine itself are removed and all are legible.
- Upkeep (maintenance and inspection) is carried out on optional vendor parts according to the requirements in the corresponding instructions.
- Following installation, commissioning and handing over of the dishwashing machine to the customer/operator, no modifications are made (e.g. electrical or mechanical machine components).
- 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 in the quality of the wash and 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 isolator. This is located in the electricity supply for the machine.
- · Wear suitable work clothing.
- When working on the dishwashing machine, wear appropriate protective gloves.
- Allow machine components and washware 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 dishwashing 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.

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 and washware to cool down before touching.

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Information on cleaning the surrounding area

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

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

Information on electrics 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.

4.7 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.

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Pro

Product description

5 Product description

5.1 Functional description

The M-iClean H is a hood type dishwashing machine with a square basket.

The dishwasher has one wash and one final rinse cycle.

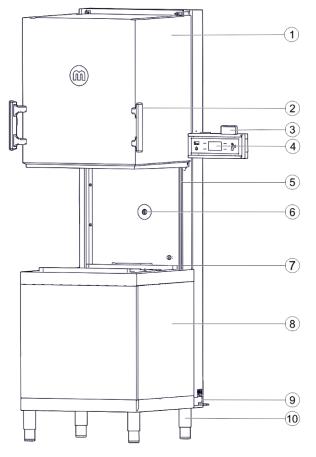
A temperature regulator maintains the set wash temperature of between 58-60 °C. A rotary pump circulates the water from the wash tank into the wash nozzles. The water jets hit the wash ware from different directions. This ensures uniform washing results.

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

Exterior view

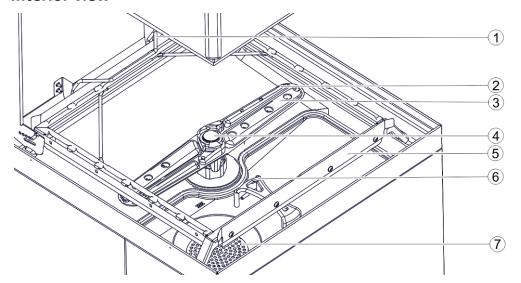


- 1 Hood
- 2 Hood handle
- 3 Indicator light
- 4 Operating panel with safety glass
- 5 Guide rails
- 6 Overflow for fresh water system
- 7 Wash chamber with basket guide
- 8 Lower section containing pumps, boiler and switch cabinet
- 9 Knockout opening for utility connections and detergent/rinse aid
- 10 Height-adjustable foot



Product description

Interior view



- 1 Basket detection switch (optional)
- 3 Wash arm (cleaning system)
- 5 Basket guide
- 7 Suction sieve

- 2 Wash arm (final rinse system)
- 4 Retaining screw for wash arm
- 6 Sieve cover

GiO Module (optional):



GiO Module supplied separately

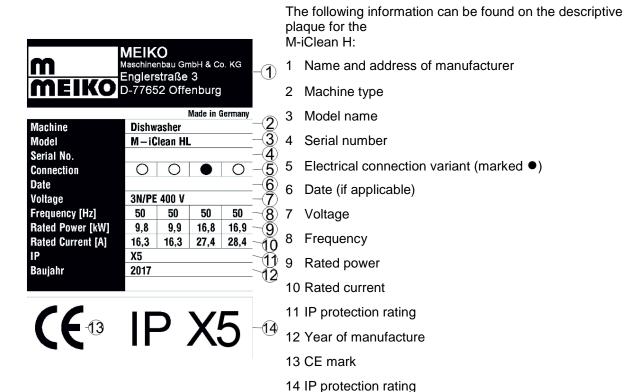


∏ P

Product description

5.3 Type label

On the M-iClean H, the descriptive plaque is located to the bottom right of the machine's front panel. Further descriptive plaques are located on the switch cabinet behind the front panel, on the display and on the separate GiO Module (if it is part of the machine).

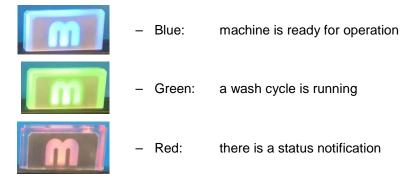


Note

The M i-Clean H be connected to the power provided a power supply is locally available. The connection variant currently available is labelled • under (5). A (MEIKO authorised) electrician can attach a different connection variant.

5.4 Indicator light

The indicator light shows different colours depending on the operating mode.





Product description

5.5 Options

5.5.1 Automatic hood system

The hood is fitted with an electric motor, removing the need for physical effort when opening and closing.

Features:

- · Closes hood when wash key is pressed
- Closes hood with optional basket detection
- Opens and closes hood when hood handle is tapped
- Opens hood when cycle is finished (setting)

5.5.2 Basket detection (Intellistart)

Basket detection/Intellistart is an additional function available with the **automatic hood system** option. When the basket is pushed into the machine, the hood closes after 3 seconds and the chosen wash cycle starts automatically, see section "Basket detection (Intellistart)" on page 43.

5.5.3 PowerWash

Electronic regulation of wash performance to be optimally adjusted to the washware and degree of soiling:

- 3 pressure levels, see section "M-iClean HM-PW/HXL-PW" on page 39
- · Soft start
- Integrated into the following models: HM-PW, HL, HXL-PW

Only available with customer provision of local 20 or 32 A fuse protection,.

5.5.4 Heat retention

The heat retention setting closes the back of the hood when the hood is open.

- Loss of steam into the surrounding area at the end of the cycle is reduced.
- · Saves energy by retaining steam.

Available:

- · ONLY in conjunction with automatic hood system
- NOT in conjunction with AirConcept

5.5.5 Exhaust heat recovery (AirConcept)

The exhaust heat recovery system is installed on the back of the hood:

- Loss of steam into the surrounding area is reduced.
- Saves energy by targeted suction of hot steam through a fresh water heat exchanger.
- Heated water is available for the next wash cycle.

Available:

- · NOT in conjunction with warm water
- NOT in conjunction with heat retention



Product description

5.5.6 Wastewater heat recovery

Hot wastewater is pumped through a metal pipe into a stainless steel heat exchanger:

- The fresh water in the metal chamber of the heat exchanger is heated.
- · Saves energy because the boiler can heat less.

5.6 Additional functions

5.6.1 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.

5.6.2 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.

5.7 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.



Note

Information on cleaning chemicals, see section "Detergent and rinse aid" on page 33.



Product description



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 conveyor pipeline. The dosing equipment is self-priming. Dosing occurs during each filling cycle and at the beginning of each programme cycle via timer control.

Normally, a dose 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 washware and degree of soiling.

Rinse aid dosing

The rinse aid dosing unit is designed to automatically dose the rinse water with liquid acid rinse aid.

The rinse aid is pumped out of the storage container into the rinse water boiler supply line through a conveyor pipeline. The dosing equipment is self-priming. Dosing takes place for each full cycle and each programme 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 washware which means that the dosage needs to be increased.



Example image of dosing equipment with peristaltic tube

Dosing equipment lifetime

The components of the dosing system are subject to high demands:

- Exposure to high concentrations of cleaning products
- Mechanical strain from peristalsis (e.g. by the peristaltic tube)
- · High (ambient) temperatures
- · Long operating hours

It is therefore essential that the operator has these parts (i.e. wear and tear parts) checked and serviced regularly. However, it is extremely difficult to prescribe exact life spans when the parts will need to be replaced since conditions differ greatly from machine to machine.

The materials found in the dosing system and especially in the peristaltic tubes are not suitable for use with all detergents and rinse aids available on the market. In certain cases, they must be adapted to the relevant conditions. This will require agreement from the Service Technician (MEIKO authorised) or the detergent supplier.

This maintenance guideline (see section "Maintenance table" on page 62) is therefore simply a non-binding recommendation.



Technical data

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

Versions	Machine
M-iClean HM	145 kg
M-iClean HL	162 kg
M-iClean HXL	230 kg

Noise emissions

Work place noise level LpA ≤ 70 dB (A).

7 Assembly

A 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.

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.
 - For Australia only:

The drainage hose needs to have a watertight connection to a waste fitting complying with AS 1589 AS 2887, a sanitary plumbing pipe or fitting complying with AS/NZS 1260.

- 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



Note

Where the water conductivity is σ < 100 µS/cm, the stainless steel variant of Air-Concept must be used. This is the case when using a reverse osmosis (GiO) or demineralisation system, for example.

Fresh water connections must be made as per EN 1717 or local regulations.

The basic model of the dishwashing machine features an air gap (type AA as per EN 1717) and does not require any other safety equipment in the water supply.

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

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

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.
- When replacing an old machine with a new one, make sure that the existing feed hose is exchanged for the new feed hose supplied with the machine.

7.1.5 Requirements to the electrical connection

A Warning

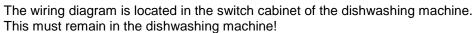


Danger to life from electric shock

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

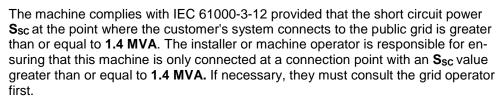
- Work at or repairs to the electrical system must be conducted by a qualified electrician who complies with the electrotechnical rules.
- Disconnect the machine from the power supply before working on the electrical system. To do this, turn the local mains switch to OFF and ensure that it can't be switched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

Note



The descriptive plaques with the electrical connection values are located on the switch cabinet behind the front panel, on the display and on the separate GiO Module (if it is part of the machine).

Note



MEIKO offers a line choke as a retrofit component for customers who do not have the necessary short circuit power at the connection point.

Other dangers

Danger of death by electric shock: contact with live electrical parts can lead to serious injury or death.

Who may connect it?

The dishwashing machine must be connected by a (MEIKO authorised) electrician in accordance with the locally applicable norms and regulations.

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Local earth wire system

The electrical safety of this machine is only ensured if it is connected to a properly installed protective conductor system. It is very important to verify this fundamental safety feature. If in doubt, have the building wiring checked by an electrician.

Voltage and frequency

The machine may only be operated with the data provided on the descriptive plaque (see section "Type label" on page 20).

Power cable/fixed connection:

Recommended connection with protective equipotential bonding

The machine and accessory appliances are intended for permanent connection to the locally available power supply and the locally available protective equipotential bonding and have been tested for the market accordingly.

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 wire (N): when connecting to three-phase current, use a 4-pole clamping strip (L1, L2, L3, PE).

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

Alternative connection without protective equipotential bonding

The operator can decide at his/her own discretion and under his/her own responsibility to connect the electricity supply using customer resources in collaboration with an electrician company:

- 1. Fixed connection without protective equipotential bonding
- 2. Plug connection according to EN 60309 (CEE plug connection)

Additional necessary measures for personal protection:

Machines with integrated frequency converters must have an RCD/FI circuit breaker (type B) max. 30 mA sensitive to all types of current installed rather than a residual current operated circuit breaker type A.



Note

Where discharge currents exceed 10 mA, the use of an RCD/FI is not recommended. False alarms restrict machine availability.

MEIKO expressly excludes any liability for damages caused by improper connection of the machine.

This includes any work in connection with services due to said connection, e.g. processing complaints or claims due to:

- Triggered RCD/FI
- Automatic shut-down of the supply when the earth wire for the consistency is lost (EN 60204-1 Chap. 8.2.8.c)

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Local mains isolator

The power supply must be fused in accordance with the regulations and a lockable mains isolator provided in the local electrical installation.

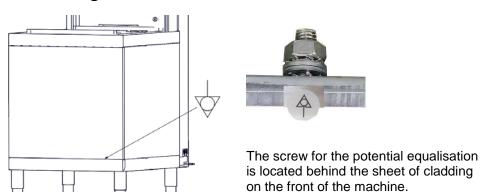
If an unearthed neutral conductor (N) is used with three-phase current, the mains isolator must have 4 poles (with alternating current 2 poles).

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

Local fuse protection

The machine must be fused appropriately for the rated current shown on the descriptive plaque. The electrical connection must be fused as a separately fused circuit (final circuit). Take note of the connection variant.

Protective equipotential bonding



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). Incorporate the machine and any conductive substructures and table systems into the local potential equalisation system.

Possibility to switch

The machine can be connected and switched to higher or lower power depending on the locally available power supply. This must be carried out by a (MEIKO authorised) electrician.

On delivery, the boiler heater is already wired to customer specifications and the connection variant is indicated on the descriptive plaque.

7.2 Transport

A 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.

7.3 Perform assembly



A Warning

Danger of injury from machine falling over

If machine is freestanding and not secured, it could fall over and cause crushing.

• If machine if freestanding, it must be secured long term to prevent tipping.

A Beware

Improper fresh water connection

Backsiphonage of non drinking water into the water supply system

 Have the fresh water connected by a qualified professional and in accordance with local regulations.

Caution

Material damage due to ingress of pressurised media

- Shut off the fresh water supply at the main valve prior to installation works.
- · Check that all lines are securely connected.

Caution

Material damage due to escaping steam

Small quantities of steam may escape through the dishwashing machine's hood area. It is possible that adjacent furniture may warp.

- · Protect adjacent furniture from warping.
- If possible, avoid installing the machine in an area close to furniture susceptible to warping.



Note

When installing non-MEIKO tables on the hood type machine, ensure that no risks arise at the joint with the hood, such as danger of crushing or shearing.



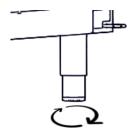
Commissioning



Note

Assembly may be performed **only** by an authorised service technician!





- Ensure the machine is level in both directions by using a water level.
- Compensate for an uneven floor by adjusting the foot studs.
- Table joints must be sealed with a detergent-resistant sealant (e.g. silicone).
- Machine is intended for installation in front of a wall.
 - Otherwise, the machine must be secured against tipping.
- · Check that the machine is stable.

Disposal of packaging materials, see section "Dismantling and disposal" on page 68!

8 Commissioning

A 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.

8.1 Check prerequisites for commissioning

Caution

Material damage due to escaping steam

Small quantities of steam may escape through the dishwashing machine's hood area. It is possible that adjacent furniture may warp.

- · Protect adjacent furniture from warping.
- If possible, avoid installing the machine in an area close to furniture susceptible to warping.

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.



Commissioning

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 undercounter 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.



Operation/use

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.

Button/symbol	Meaning
	On/off key
U	Filling/heating on or machine off
	Confirmation key
	Meaning/function is shown on the display next to the relevant key
	Wash key
B	Flashing blue: filling/heating active
	Flashing green: filling/heating active / memory start
	Illuminated blue: machine is ready for operation
	Illuminated green: washing active
MEIKO	Service access key/wake-up key
i	i-menu
th.	Action menu
гfл	Self-cleaning/drainage menu
₹±	Open/close hood



Operation/use

Key/symbol	Meaning
W ()	Programme: cutlery
D	Programme: cups
	Programme: crockery
	Programme: pans
り	Programme: glassware - gentle
Q	Programme: glassware - normal
	Programme: glassware - intensive
*	Programme: glassware - gentle + cold water rinse
*	Programme: glassware - 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

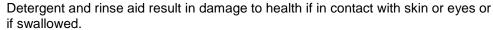
9.3 Washing with the dishwashing machine

9.3.1 Preparation for washing



Warning

Danger of injury from contact with chemicals



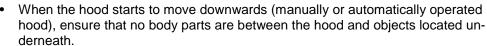
- · Use eye protection.
- Wear protective gloves.
- Contact a physician immediately if chemicals or water containing chemicals (rinse water) are swallowed.

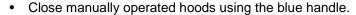


A Beware

Danger of crushing

Body parts could be crushed when closing hood.







Danger of injury or material damage due to storing items on the hood ltems may fall down when hood moves.

• Ensure that no items are to be found on top of the hood.

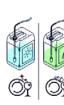
System operators must be very familiar with the Operating Instructions of the dishwashing machine. Incorrect operation may result in personal injury or material damage.



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 58.



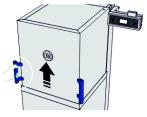
Operation/use



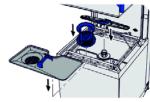
5. If the display is dark, press the Wake-up key to activate the display.



6. a) Open hood with the relevant operation key arrow upwards.



b) Open hood by tapping it.



7. Insert filter, sieve and wash systems.



8. a) Close hood with the relevant operation key arrow downwards.



b) Close hood by tapping it.



Operation/use

9.3.2 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.

9.3.3 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.



9.3.4 Select wash programme



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



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

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



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

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	l-iClea	n	N	I-iClea HL	ın	N	1-iClea	
Programme channel		1	2	3	1	2	3	1	2	3
3NPE 400V	Glass- ware	3	6	11	3	6	11	3	6	11
Cold or hot water connection	Crockery	7	9	12	7	9	12	7	9	12

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M-iClean HM/HXL

Programme number*	Programme runtime	Boiler tem- perature	Tank tem- perature	Quantity of rinse water	Programme symbol
	[s]	[°C]	[°C]	[1]	
1	60	65	60	2.4/4.8	早
2	60	65	60	2.6/5.2	\Box
3	90	65	60	2.4/4.8	7
4	90	65	60	2.6/5.2	\Box
5	60	65	60	2.4/4.8	
6	120	65	60	2.6/5.2	
7	60	81	60	2.4/4.8	Ď
8	90	81	60	2.4/4.8	Ď
9	90	81	60	2.6/5.2	
10	120	81	60	2.6/5.2	D
11	120	81	60	2.6/5.2	
12	210	81	60	2.6/5.2	
13	210	81	60	2.6/5.2	
14	240	81	60	2.6/5.2	
15	90	2	55	3.5/7.0	*
16	120	2	55	3.5/7.0	*
25	60	65	60	2.4/4.8	<u>P</u>

^{*} Setting: Standard programme

Programme configuration, see page 37.



M-iClean HM-PW/HXL-PW

Pro- gramme number*	Pro- gramme runtime	Boiler tempera- ture	Tank tem- perature	Pressure level	Quantity of rinse water	Pro- gramme symbol
	[s]	[°C]	[°C]	[1-3]	[1]	
1	60	65	60	1	2.4/4.8	Р
2	60	65	60	2	2.6/5.2	\Box
3	90	65	60	1	2.4/4.8	7
4	90	65	60	2	2.6/5.2	Q
5	60	65	60	3	2.4/4.8	
6	120	65	60	2	2.6/5.2	
7	60	81	60	1	2.4/4.8	Ď
8	90	81	60	2	2.4/4.8	D)
9	90	81	60	2	2.6/5.2	
10	120	81	60	1	2.6/5.2	Ď)
11	120	81	60	2	2.6/5.2	D)
12	210	81	60	3	2.6/5.2	
13	210	81	60	3	2.6/5.2	
14	240	81	60	3	2.6/5.2	(C
15	90	2	55	1	3.5/7.0	*
16	120	2	55	2	3.5/7.0	*
25	60	65	60	1	2.4/4.8	Р

^{*} Setting: Standard programme

Programme configuration, see page 37.



M-iClean HL

Pro- gramme number*	Pro- gramme runtime	Boiler tempera- ture	Tank temperature	Pressure level	Quantity of rinse water	Pro- gramme symbol
	[s]	[°C]	[°C]	[1-3]	[1]	
1	60	65	60	1	3.0	Р
2	60	65	60	2	3.5	Q
3	90	65	60	1	3.0	早
4	90	65	60	2	3.5	\Box
5	60	65	60	3	3.0	
6	120	65	60	2	3.5	
7	60	81	60	1	3.0	Ď)
8	90	81	60	2	3.0	Ď)
9	90	81	60	2	3.5	
10	120	81	60	1	3.5	Ď
11	120	81	60	2	3.5	Ď
12	210	81	60	3	3.5	
13	210	81	60	3	3.5	
14	240	81	60	3	3.5	
15	90	2	55	1	4.0	*
16	120	2	55	2	4.0	*
25	60	65	60	1	3.0	P

^{*} Setting: Standard programme

Programme configuration, see page 37.



\square

Operation/use

9.3.5 Start washing process

A Beware

Danger of crushing



Body parts could be crushed when closing hood.

- When the hood starts to move downwards (manually or automatically operated hood), ensure that no body parts are between the hood and objects located underneath.
- Close manually operated hoods using the blue handle.

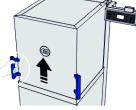
The M-iClean H features 3 different options for starting a wash cycle (initiation functions):

- · Wash key
- · Touch operation
- Intellistart basket detection

The following 3 action steps are to be carried out before using any of the 3 options.



- 1. Clear the washware (removing any large food residues, napkins, tooth picks, lemon peel etc.).
- 2. Put the washware into the basket.



3. Open hood.

9.3.6 Operation using wash key



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



6. Ensure that the correct programme has been selected, see section "Select wash programme" on page 37.



7. Press the wash key.

The machine's hood will close. The wash cycle will start automatically.





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 runtime is automatically extended.

9.3.7 Touch operation

A Beware

Special initiation function

Danger of injury to children; people with physical, sensory or mental impairments; people lacking in knowledge or experience

- Ensure that no persons from the above groups are to be found in the area surrounding the machine.
- Only qualified persons should perform work at and with the machine.
- If in doubt, deactivate special initiation functions which do not require conscious, intentional action (i.e. operation from the display).

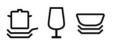


Note

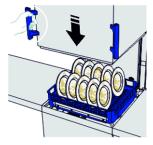
If chosen, the machine can be set so that the wash cycle starts as soon as the hood is closed. Otherwise, the wash key must be pressed.



- 1. Insert the basket into the dishwashing machine.
- 2. Centre the basket correctly in the basket holder.



3. Ensure that the correct programme has been selected, see section "Select wash programme" on page 37.



Tap the machine hood.



The machine's hood will close. The wash cycle will start automatically or on pressing the wash key.

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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 runtime is automatically extended.

9.3.8 Basket detection (Intellistart)

A Beware

Special initiation function

Danger of injury to children; people with physical, sensory or mental impairments; people lacking in knowledge or experience

- Ensure that no persons from the above groups are to be found in the area surrounding the machine.
- Only qualified persons should perform work at and with the machine.
- If in doubt, deactivate special initiation functions which do not require conscious, intentional action (i.e. operation from the display).



Note

If chosen, the machine can be set so that the wash cycle starts 3 sec after inserting the basket. Otherwise, the hood must be tapped or the wash key pressed. A wash cycle may be started by pressing the wash key when there is no basket in the machine (e.g. for cleaning).



1. Ensure that the correct programme has been selected, see section "Select wash programme" on page 37.



- 2. Insert the basket into the dishwashing machine.
- 3. Centre the basket correctly in the basket holder.

The machine detects the basket automatically.

- Either: the hood will close after 3 sec.
- Or: tap the hood (configuration setting).
- Or: press the wash key (configuration setting).

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The wash cycle will start automatically.



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 runtime is automatically extended.

9.3.9 Emptying the dishwasher

A 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).



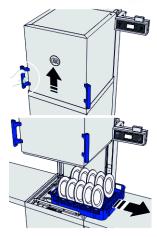
At the end of the programme, the wash key changes colour from green to blue.

The hood opens immediately (depending on parameter settings) and the display shows as ready for operation.

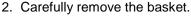
With closed hood:



1. a) Open hood with the relevant operation key arrow upwards.



b) Open hood by tapping it.

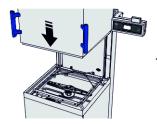




- a) New wash cycle: insert fresh basket and start wash cycle.
- b) Close hood with no wash cycle: close with the relevant operation key arrow downwards.

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The hood closes, saving energy, or a further wash cycle runs.

9.4 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
	No water present	Open the stop valve
Dishwashing machine doesn't fill up	Dirt trap clogged	Clean the dirt trap
accont im ap	Open door/hood	Close door/hood
	No water present	Open the stop valve
Final rinse does not spray	Dirt trap clogged	Clean the dirt trap
,	Insert for rinse nozzle incor- rectly inserted (UPster/DV/FV)	Check rinse arm
	Unsuitable rinse aid	Change product
Streaks / smears on the	Incorrect dosing quantity	Adjust dosing quantity
washware	Regeneration time incorrect (UPster/DV/FV)	Set regeneration time outside wash cycle times.
	Water pre-treatment defective	Check water pre-treatment
	Dirt level too high	Prepare the washware more thoroughly/change tank water more frequently
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 here require assistance from an authorised service technician. Please contact your subsidiary or authorised dealer.



9.4.1 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	Leakage in floor tray	There is a leak.Minimum signal duration 5 seconds to activation	 Not possible to continue working Call a service technician!
6	Programme cancelled prematurely	 On/off key activated during wash cycle Hood was opened during the wash cycle Hood was slightly lifted for a short period due to high pressure in the wash tank 	Start wash cycle again
11	Carry out maintenance	Carry out maintenance	Possible to continue workingCall a service technician!
12	Access code wrong!	Input code not available in inter- nal table	Enter correct entry code
15	Abort heat recovery	 On/off key was pressed during heat recovery Hood was opened during heat recovery 	Allow the heat recovery process to run to completion.
16	Hood not closed	 Hood is open Limit switch incorrectly set or defective Cable breakage Connection of plug to wiring 	Close hood.
17	Empty Close hood	Automatic drainage cannot continue as hood is open	Close hood

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No.	Display text	Note / possible cause	Measures / remedial action
18	Finish water change	Automatic water change cannot continue as hood is open	Close hood
19	"Lower" hood switch indicators do not match up: Switch S7: "1"; Switch S8: "0"	 Corresponding magnetic switches/magnets depending on hood position Cable breakage Connection of plug to wiring 	Call a service technician!
20	"Lower" hood limit switch indicators do not match up: Switch S7: "0"; Switch S8: "1"	 Corresponding magnetic switches/magnets depending on hood position Cable breakage Connection of plug to wiring 	 Open/close hood Able to continue working at limited capacity Call a service technician!
100	First fill error	 Reference level in tank not reached in time during filling. Local water supply inadequate. Level detection defective 	 Not possible to continue working Call a service technician!
101	Drainage level not reached	Drainage sieve cloggedDischarge pump clogged/defectiveLevel detection defective	 Check the drainage sieve, clean if necessary Call a service technician if needed
102	Level does not drop below safety level after a period	Drainage sieve cloggedDischarge pump clogged/defectiveLevel detection defectiveThere is a blockage	 Not possible to continue working Shut off local water supply Switch off the circuit breakers Call a service technician!
103	Tank temperature not reached	 Set tank temperature not reached Temperature probe defective Heating defective I/O circuit board is defective 	Possible to continue workingCall a service technician
104	Overheated tank	 Maximum tank temperature exceeded Contactor/relay on I/O circuit board is sticking Temperature sensor defective Plug contact for temperature sensor is high resistance 	Switch off local circuit breakersCall a service technician!



No.	Display text	Note / possible cause	Measures / remedial action
106	Extended wash time insufficient	Tank heating defectiveBoiler heating defectiveSupply valve defective	If this error message reoccurs, call a service technician
107	No signal from tank level sensor	Connection of plug to wiringCable breakage in wiringPressure sensor defective	Not possible to continue workingCall a service technician!
108	Short circuit on tank temperature sensor	Short circuit in the wiringMoisture in the plug connectorTemperature sensor defective	Not possible to continue workingCall a service technician!
109	Cable breakage on tank temperature sensor	 Plug connection not correctly plugged in, crimp connection insufficient. Cable breakage in wiring. 	Not possible to continue workingCall a service technician!
110	Temperature monitoring on discharge pump Inform a service technician!	 The discharge pump may be blocked Transport of waste water no longer possible Operation not possible until the blockage is removed Level detection defective 	Shut off local water supplySwitch off local circuit breakersCall a service technician!
111	Water loss in wash tank	Ventilation valve cloggedLeakage in level control system	If this error message reoccurs, call a service technician!
112	Forced drainage due to permanently filled wash tank	The tank had not been drained for a long period of time	Change the water or drain the machine at least once a day
114	Fine/coarse sieve missing	 Fine/coarse sieve not present inserted incorrectly Cable breakage Sensor defective Magnet missing 	 Correctly insert fine/coarse sieve If this error message reoccurs, call a service technician
115	Discharge pump active after trigger- ing of the safety level	Tank overfilledSupply valve does not closeSafety level exceeded	Possible to continue working



No.	Display text	Note / possible cause	Measures / remedial action
117	Top wash system blocked/missing	Top rotating arm wash system	Ensure wash arm system is in operational condition
118	Bottom wash arm system blocked/missing	Bottom rotating arm wash system	 If applicable, insert wash arm system If applicable, remove dirt particles and ferrous metal particles from the magnet
127	Temperature increase not reached	 Set tank temperature/temperature increase not reached Temperature probe defective Heating defective I/O circuit board is defective 	If this error message reoccurs, call a service technician
150	Hood drive mal- function	 Limit position not reached Maximum hood movement time exceeded Malfunction in the drive motor or the limit switch 	 Not possible to continue working Call a service technician!
151	Hood hit an obsta- cle	 "Closing" hood movement disrupted/blocked Movement may be blocked by an obstacle/object 	Domaii abatasla
153	Hood hit an obsta- cle while opening	 Hood cannot be opened or moved to the "up/open" limit position If applicable, obstacle must be removed 	Remove obstacle
154	Error moving away from lower hood limit switch	Hood does not move away from lower hood limit switch or switch no longer switches	Call a service technician
155	Error approaching lower hood limit switch	Lower hood limit switch is not reached or no longer switches	Able to continue working at limited capacity
157	Error moving away from upper hood limit switch	Hood does not move away from upper hood limit switch or switch no longer switches	Call a service technician
158	Error approaching upper hood limit switch Hood drive pulse generator error	 Upper hood limit switch is not reached or no longer switches Hood drive pulse generator has stopped delivering pulses. 	Able to continue working at limited capacity



No.	Display text	Note / possible cause	Measures / remedial action
159	Open hood	To restart the programme, the hood must be opened and closed. Otherwise, the wash will not start	Open and close hood
160	Upper/lower hood limit switches acti- vated simultane- ously	Upper/lower hood limit switches activated simultaneously	Open and close hoodPossible to continue workingCall a service technician!
161	Automatic operation deactivated Manual operation active	Manual operation active until the cause of the malfunction is re- solved or the required condition is fulfilled again	Able to continue working at limited capacityCall a service technician!
162	Automatic operation is possible again Activate?	 Manual operation may cease because the required condition is fulfilled again To leave manual operation mode, this message must be confirmed 	Confirm message
200	Boiler level not reached on time during filling	No or insufficient quantity of water supply	 Open the local water supply Check pre-filter/sieve and clean, if necessary
201	Level not reached after end of maxi- mum final rinse du- ration	Booster pump not functioningLevel detection defectiveFinal rinse system clogged	 Not possible to continue working Call a service technician!
203	Final rinse temper- ature not reached	 Set boiler temperature not reached Temperature probe defective Heating defective 	Call a service technician!
204	Overheated boiler	 Maximum boiler temperature exceeded, check parameters Contactor/relay on I/O circuit board is sticking Temperature sensor defective Plug contact for temperature sensor is high resistance 	Switch off local circuit breakersCall a service technician!
205	Maximum final rinse cycles insufficient	 Insufficient rinse aid quantity for functional level in the wash tank. Possible water absorption by washware. 	Sort washware correctlyPossible to continue working



No.	Display text	Note / possible cause	Measures / remedial action
206	Extended wash time on final rinse insufficient	Temperature probe defectiveBoiler heating defectiveSupply valve does not close	 Check boiler heating, replace if necessary. Run times not adjusted in line with heating capacity.
207	No signal from boiler level sensor	Connection of plug to wiringCable breakage in wiringPressure sensor defective	Not possible to continue workingCall a service technician!
208	Short circuit in boiler temperature sensor	Short circuit in the wiringMoisture in the plug connectorTemperature sensor defective	Not possible to continue workingCall a service technician!
209	Cable breakage in boiler body temperature sensor	 Plug connection not correctly plugged in, crimp connection insufficient. Cable breakage in wiring. 	Not possible to continue workingCall a service technician!
212	Forced drainage due to permanently filled boiler	The boiler had not been drained for a long period of time	Change the water or drain the machine at least once a day
213	Booster pump or air catch defective	Booster pump not functioningLevel detection defectiveFinal rinse system clogged	 Check booster pump Check the air trap, hoses and sensor for level detection Check the rinse aid system and clean, if required
301	Rinse aid low	Rinse aid emptyMeasurement electrode error	Refill/replace containerFor external storage containers,
311	Detergent low	Detergent emptyMeasurement electrode error	check the position of the suc- tion lance and clean, if neces- sary
330	Dosing leak	Leakage in dosing system	Not possible to continue workingCall a service technician!
406	Advance report: cartridge nearing end of life	Cartridge will soon need replac- ing	 Have a replacement cartridge ready Replace when notification 407 appears
407	Change desalina- tion cartridge	End of life of desalination car- tridge	Replace desalination cartridge
408	Change osmosis system pre-filter	End of life of pre-filter	Replace pre-filter



No.	Display text	Note / possible cause	Measures / remedial action
410	Water supply os- mosis module faulty	No or insufficient quantity of water supply	 Open water inlet valve Check pre-filter/sieve and clean or replace, if applicable
500	Energy optimisation active	 Energy optimisation was externally requested Restricted availability of heating capacity for machine Longer runtimes possible 	No action required
501	Energy optimisation active Tank temperature not reached	 Set tank temperature not reached Temperature probe defective Heating defective I/O circuit board is defective 	Possible to continue workingCall a service technician!
502	Energy optimisation active Extended wash time in tank insufficient	Tank heating defectiveBoiler heating defectiveSupply valve defective	 Possible to continue working If this error message reoccurs, call a service technician
503	Energy optimisation active Temperature increase not reached	 Set tank temperature/temperature increase not reached Temperature probe defective Heating defective I/O circuit board is defective 	If this error message reoccurs, call a service technician
504	Energy optimisation active Final rinse temperature not reached	 Set boiler temperature not reached Temperature probe defective Heating defective I/O circuit board is defective 	Call a service technician!
505	Energy optimisation active Extended wash time on final rinse insufficient	Temperature probe defectiveBoiler heating defectiveSupply valve does not close	If this error message reoccurs, call a service technician
880	Communication with SMART WIRE node addr. 1	SI1 board defective (ID chip)	 Not possible to continue working Switch off local circuit breakers Call a service technician!
892	Communication with SMART WIRE node addr. 13	Sl31 board defective (lighting board)	Possible to continue workingCall a service technician!



No.	Display text	Note / possible cause	Measures / remedial action
901	Communication with CAN Bus addr.	Communication cable not plugged in.CAN address switch set incor-	Not possible to continue work- ing
902	Communication with CAN Bus addr. 2	rectlyNo power supply for I/O board.I/O circuit board is defective.	Call a service technician!
960	EEPROM error	EEPROM access fault	 Not possible to continue working Call a service technician!
963	Bluetooth access error	 An error occurred when access- ing the Bluetooth module and, as a consequence, it may be un- available 	Confirm messagePossible to continue workingCall a service technician!
969	Buffer battery critical	If a power interruption occurs, the date and time are undefined	 Confirm message Able to continue working at limited capacity Call a service technician!
971	Operating panel re- initialising	Plug connection open.Glass panel not responding.	If this error message reoccurs, call a service engineer

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

9.5 Shut down the machine



1. Press on/off key.

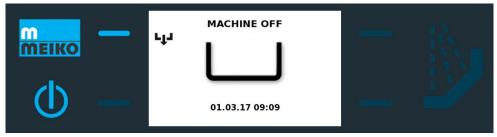






2. Confirm request with the relevant confirmation key.

The machine carries out a self-clean.



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

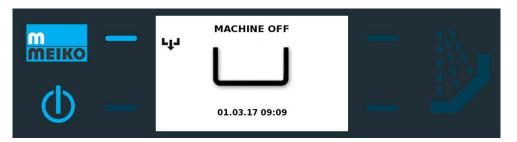


9.6 Change authorisation level



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).

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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

i	Symbol	Level	Description
Languages	p	1, 4	Set display language
Hood movement	*	1, 4	Lift/lower hood and view status
Wash tank		1, 4	Set automatic hood opening and descaling parameters View status
Final rinse	7	1, 4	View status
Chemicals	1	1	Set dosage levels for detergent and rinse aid
Water treatment		1	Set hardness and treatment parameters
Heat recovery	35	1	No user settings
Energy optimisation	114	1, 4	No user settings
Global	\Omega	1	Set wash programme channels and Bluetooth communication
Operating times	Ò	1.4	View batches, operating times, etc.
Operating log		1.4	View archived operating times, events, etc.
Wash programme	y	4	Set quantity of rinse aid and fine tune dosage
Settings	٦	1.4	Set date/time, reset counter, notification settings
General	į	1.4	View software version, machine serial number, machine type
Dosing system	1	4	Dosing parameters for the dosing system



Action menu

th.	Symbol	Level	Description
Bleed detergent pipelines		1, 4	Starts detergent or rinse aid dosage pump to bleed the conveyor pipelines when re-
Bleed rinse aid pipelines		1, 4	quired e.g. when the storage containers are empty during operation.
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.

9.7 Reset the counter



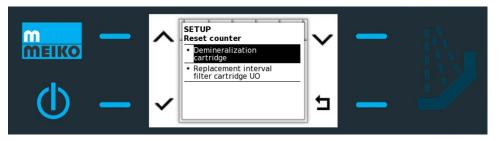
Note

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 54.
- 2. Call up the i-menu using the relevant confirmation key.
- ىر
- 3. Switch to the **Settings** tab page.
- 4. Select the item reset counter.
- 5. Confirm the selection.





6. Select the counter to be reset.

7. Confirm the selection to reset the values.

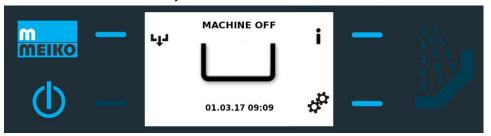
Note

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 54.

9.8 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.



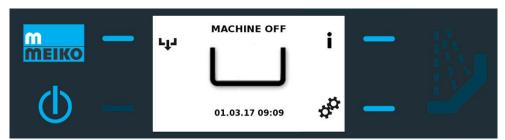
- 1. Switch to security authorisation level 1 **user configuration level**, see section "Change authorisation level" on page 54.
- 2. Call up i-menu using the relevant confirmation key.
- 3. Switch to the global tab.
 - 4. Select the item parameters.
- 5. Confirm the selection.
 - 6. Select the item release Bluetooth communication.
- 7. Confirm the selection.
- 8. Select the item no.
- 9. Confirm the selection.

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9.9 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 54.



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





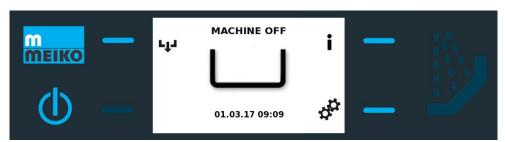


3. Select the required submenu.



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

9.10 Perform a manual water change



1. Switch to authorisation level 1 **User configuration level**, see section "Change authorisation level" on page 54.



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.



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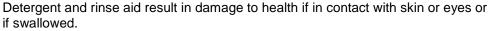
Operation/use

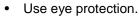
9.10.1 Replacing the external storage container



A Warning







- · 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, a shortage of detergent or rinse aid will be indicated on the display.



A storage container is empty.





- Remove the suction lance from the empty container and insert it into a full container.
- 2. If necessary, ventilate the pipelines,see section "Ventilating the pipes" on page 58.



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

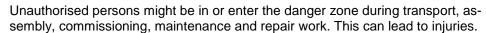
If the machine is operated without cover panels, electrified parts are freely accessible. Contact with these parts can lead to serious injury or death.

- 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.



A Warning

Danger of injury due to entry into a danger zone



- 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.



A 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).



A Beware

Danger of crushing

Body parts could be crushed when closing hood.



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Maintenance and cleaning

- When the hood starts to move downwards (manually or automatically operated hood), ensure that no body parts are between the hood and objects located underneath.
- Close manually operated hoods using the blue handle.

A Beware

Danger of injury or material damage due to storing items on the hood ltems may fall down when hood moves.

• Ensure that no items are to be found on top of the hood.

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.

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.



10.2 Maintenance table



Note

Maintenance work may only be carried out by MEIKO authorised staff!

Maintenance work Visual inspection			Replaced	Maintenance requirement
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 test of washing and final rinse annua		annually		
Replace sealing rings on wash arms				annually
Check air trap and clean if necessary				annually
Check tank level control is sealed				annually
Check sieves and filters				annually
Check rack holders for damage				annually
Check wash and final rinse systems are not leaking				annually
Check water level in tank				annually
5. Casing				
Check casing, tank and cladding for damage and correct operation				annually



Maintenance work Visual inspection	Checked	Cleaned	Replaced	Maintenance requirement
6. Hood and hood counterbalance				
Check hood movement for running noise				annually
Remove bearing block				annually
Visually check hood mounting				annually
Clean hood guide rails and back wall seal				annually
Check handles sit firmly and, if necessary, tighten screws				annually
Check life span of springs and chains				annually
 Replace after 650,000 double strokes or 12 years, whichever is first 				offer 650 000
 HM/HL: replace guide block for protective rod and mounting plate for springs 				after 650,000 loads or 12 years
 HXL: replace guide block, only replace mount- ing plate if necessary 				700.0
Clean running surfaces on square tubing				annually
7. 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 and plastic parts do not leak				annually
Check boiler drainage system does not leak				annually
8. Wastewater installation				
Replace flap on ventilation valve				annually
Check operation of drain pump during drainage				annually
Check pumps, hoses and wastewater heat exchangers are not leaking				annually
9. Detergent dosing				
Replace peristaltic tube and seals on the nozzles				annually
Check detergent dosing system is working and not leaking				annually
10. Rinse aid dosing				
Replace peristaltic tube and seals on the nozzles				annually
Check rinse aid dosing system is working and not leaking				annually



					ked	ped	Replaced	
Maintenance Visual inspec					Shecked	Cleaned	epla	Maintenance requirement
		t functio	n of whole	machine	O	O	~	roquironioni
Check filling a	nd heatin	g until it i	s ready for	operation				annually
Visual inspect	ion of the	entire ma	achine for le	eaks				annually
Check results	of test wa	ash and ri	inse					annually
Brief training f	or new pe	ersonnel						annually
12. Optio	ns							
Integ	rated rev	erse osm	osis syste	m (if prese	nt)			
Visually check	k whole sy	stem for	leaks					annually
Change pre-fi	lter							every six months
Check fine sie pipeline	eve insert	and chok	e in concer	trate				annually
Check concer eration	ntrate outl	et for dep	osits and c	orrect op-				annually
Fill in separate	e log, "Ce	rtificate o	f Commissi	oning"				annually
Partia	al desalin	ation (PI	D)/Full desa	alination (F	D) (if p	rese	ent)
Functional tes	ting							annually
Heat	retention	system	(if present)					
Visually check	k lever arr	n						annually
Check sheeting		nage						annually
Functional tes								annually
Air Co	oncept (i	f present)					
Check fan wo								annually
Check soleno	id valve ir	n distribut	or works pr	operly				annually
Visual inspect								annually
13. Water	r quality,	tempera	ture					
Untreated water	°C	°dH	°CH	μS/cm				annually
Water quality after water treatment (if available) °C °dH µS/			μS/cm				annually	
14. Electrical safety check (certificate is optional)								
Visual inspection								annually
Check earth wire								annually
Measure insulation resistance							annually	
Measure earth	n leakage	current						annually
15. Stored machine control data								
Read stored of	Read stored data and send to MEIKO Offenburg! annually							



\square

Maintenance and cleaning

10.3 Daily cleaning

Caution

Material damage due to water ingress



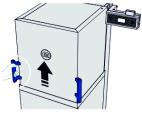
Electrical cables and electronic components can be damaged if they come into contact with water.

- 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.

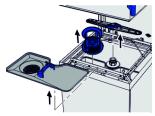
When machine is drained, see section "Shut down the machine" on page 53.



1. a) Open hood with the relevant operation key arrow upwards.



b) Open hood by tapping it.



2. Remove sieve, filter and wash system.



- 3. Remove all food residues sticking to the tank, the tank heater and the filters using a brush.
- 4. Remove the wash and rinse arm and rinse thoroughly under running water. When doing this, pay particular attention to the nozzles!
- 5. Clean filter under running water.

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



- 6. To ensure that the sensor detects the rotation of the washing arm, remove all dirt particles and ferrous particles sticking to the magnet (1).
- 7. Reinstall all parts.



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.



10.5 **De-scaling**





A 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 54). 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:

Туре:	
SN:	
س	

(This information can be found on the type plate, see section "Type label" on page 20.)

67 / 72 9750359



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
рН	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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M-iClean HM / HL





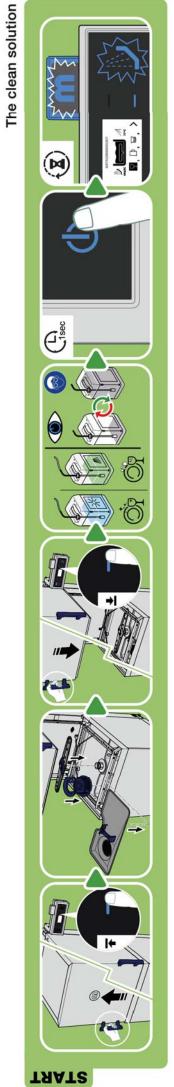


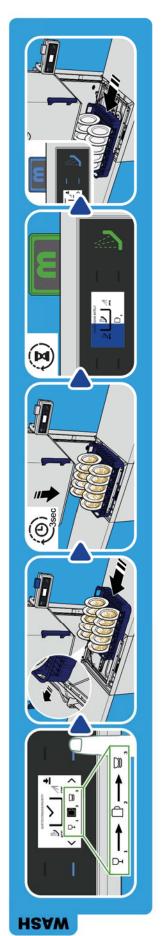


ЕКВОВ



M-iClean HM / HL Intelli-Start







GOTS

ЕКВОВ

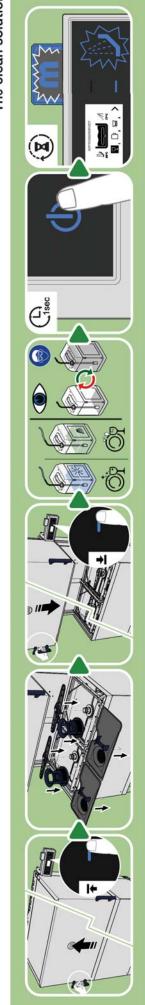






M-iClean

TAAT2







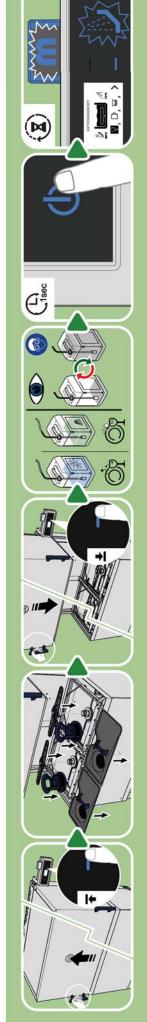


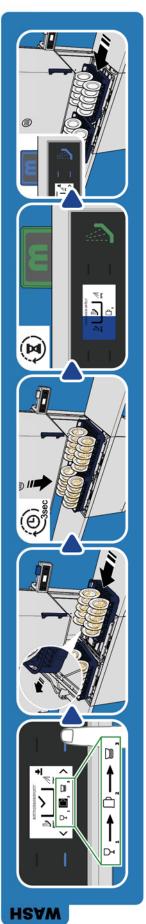




M-iClean HXL Intelli-Start

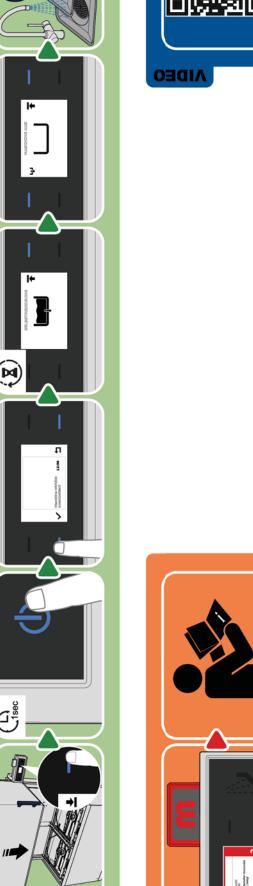
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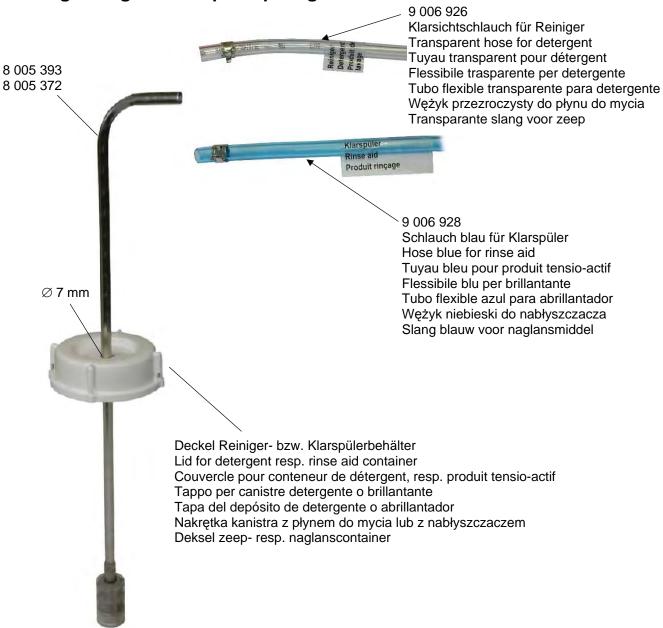
40TS



ЕККОК



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!

¡ATENCION! ¡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 / Original / Original / 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-försäkran om överensstämmelse

Firma

Company / Société / Ditta / Empresa / Fabrikant / Företag

Kontakt

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Seriennummer

Serial number / numéro de série / numero di serie / número de serie / volgnummer / serienummer

Spülmaschine Typ

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

M-iClean HM

M-iClean HL

M-iClean HXL

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 natio standarder.

Richtlinie / Directive / Directiva / Directiva / 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

Or Thomas Per 8-6

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Offenburg, 02.03.2018

MEIKO Maschinenbau GmbH & Co. KG

рра.

(per procura)

Dr. Thomas Peukert Technischer Leiter

Chief Technology Officer / Directeur de la technologie / Direttore tecnico / Director técnico / Technisch directeur / Teknisk direktör

CE

QR-Code / MEIKO Connect App





MEIKO Connect App im App-Store downloaden.

Download the MEIKO Connect app in the App-Store.

Télécharger l'appli MEIKO Connect dans le App-Store.

Descargar la aplicación MEIKO Connect en el App Store.

De MEIKO Connect App downloaden in de App Store.

Scaricare l'app MEIKO Connect nel App-Store.



MEIKO Connect App öffnen und QR-Code scannen.

Open the MEIKO Connect app and scan the QR code.

Ouvrir l'appli MEIKO Connect et scanner le code.

Abrir la aplicación MEIKO Connect y escanear el código QR.

De MEIKO Connect App openen de QR code scannen.

Aprire l'app MEIKO e scansionare il codice QR.

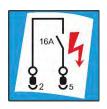


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Betriebsanleitung
Operating
instructions
Mode d'emploi
Instrucciones de
uso

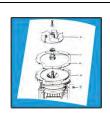
Gebruiksaanwijzing
Istruzione d'uso



Elektroplan

Electrical wiring

diagram
Schéma électrique
Diagrama eléctrico
Elektrisch
schakelschema
Schema elettrico



Ersatzteile
Spare parts

Pièces détachées

Piezas de repuesto

Reserveonderdelen

Lista ricambi



Plan d'installation

Plano de montaje

Montageplan

Disegno di
montaggio



Installationsplan

Installation diagram

Diagramme d'installation Diagrama de instalación Installatiediagramm

d'installazione