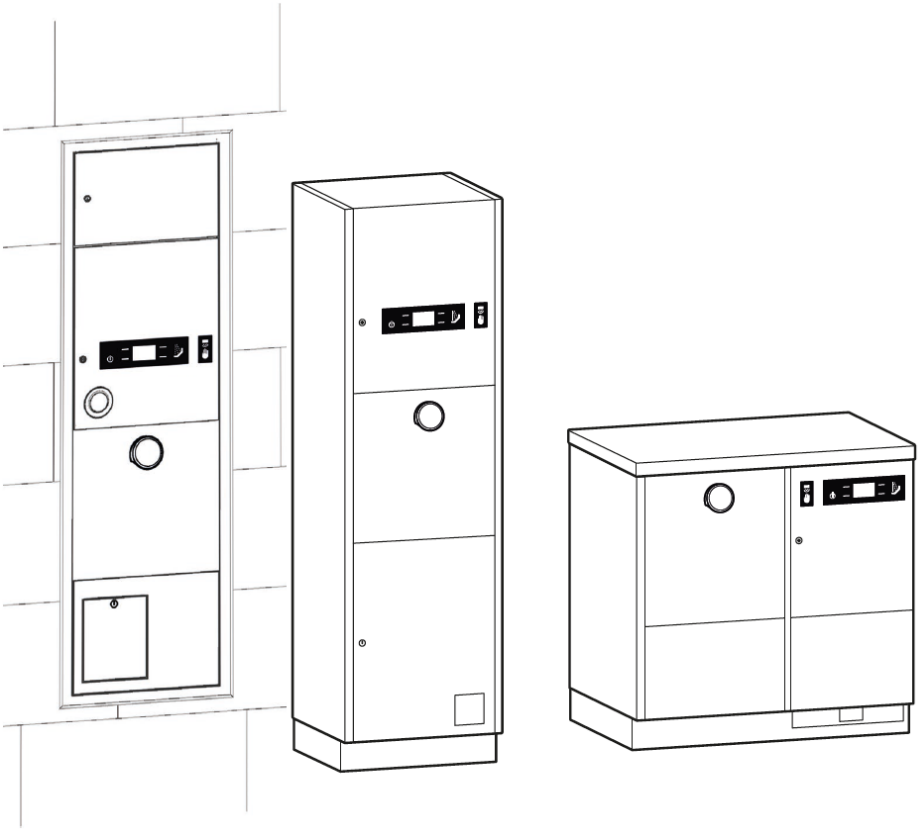
MEIKO TopLine

Type M2

Washer-disinfector

Original instructions for use



EN

Read the instructions for use before using the appliance!

CE 0483

9020183 / Valid from: 2019-02 / Update: 2026-09

www.meiko.com

Contents

1 INFORMATION ON INSTRUCTIONS FOR USE 5

1.1 Product identification 5

1.2 Delivery contents 5

1.3 Related documents 5

1.4 Presentation conventions 6

1.4.1 Warnings 6

1.4.2 Notices on use 6

1.4.3 Award elements 6

1.4.4 Symbols 7

1.4.5 Illustrations 7

2 DECLARATION OF CONFORMITY 8

3 SAFETY 9

3.1 Correct use 9

3.1.1 Intended purpose 9

3.1.2 User group 9

3.1.3 Environment of use 9

3.1.4 Notes on correct use 9

3.1.5 Determination of activities according to category of personnel 10

3.2 Misuse 10

3.3 Safety information 11

3.4 What to do in the event of an emergency 13

4 PRODUCT DESCRIPTION 14

4.1 Variants 14

4.2 Functional description 14

4.3 Overview illustration 17

4.4 Options 19

4.4.1 Detergent dosing 19

4.4.2 Load detection 19

4.4.3 Automatic door (AT) 19

4.4.4 Slop sink flushing with separate slop sink unit 20

4.4.5 Operating log with MEIKO Assist Pro app 20

4.5 WLAN and Bluetooth 20

4.6 LED indicator handle 21
4.7 Holder 21
5 TECHNICAL DATA 24
5.1 FCC Compliance Statement USA 29
5.2 IC Compliance Statement CANADA 29
6 ASSEMBLY 30
7 COMMISSIONING 30
8 OPERATION/USE 31
8.1 Glass control panel 31
8.2 Clean and disinfect care utensils (programme cycle) 36
8.2.1 Clean care utensils (basic version of the appliance) 37
8.2.2 Cancel programme 40
8.2.3 Selecting the cleaning programme 41
8.2.4 Automatic door (AT), operation with sensor (option) 43
8.2.5 Automatic door (AT), operation with foot switch (option) 44
8.2.6 Door lock with code lock / code entry (option) 45
8.3 Factory setting of the A_0 value 46
8.4 Select A_0 value 46
8.5 Replace canister 47
8.6 Perform slop sink flushing (option) 51
8.7 Malfunctions 52
8.7.1 Messages 54
9 MODIFYING SETTINGS 59
9.1 Switching to one touch operation 62
9.2 Ventilating the pipes 63
9.3 Setting up WLAN and Bluetooth connections 64
9.3.1 Enabling WLAN 64
9.3.2 Selecting a WLAN network (SSID) 64
9.3.3 Entering the password 65
9.3.4 Enabling Bluetooth 65
9.3.5 Setting up the WLAN connection with the MEIKOAssist Pro App 66
9.3.6 Using DHCP 67

9.3.7 Connecting to the appliance via Bluetooth 67
9.4 Connecting your appliance to MEIKO Assist Pro 67
9.5 Set date and time 68
9.6 Set time switch for automatic programme start 68
10 MAINTENANCE AND CLEANING ... 69
10.1 Maintenance 69
10.1.1 "Next maintenance" sticker 70
10.2 Process validation 70
10.3 Routine check 71
10.4 Daily cleaning 71
10.5 Descaling 72
11 BEHAVIOUR WHEN THE APPLIANCE IS NOT IN USE ... 72
12 DECOMMISSIONING ... 72
13 DISMANTLING AND DISPOSAL ... 73
13.1 Disposal of packaging materials 73
13.2 Disposal of the old appliance 74
14 INDEX ... 75

1 Information on instructions for use

Before using the machine, read the instructions for use and the related documents carefully and keep them in a safe place and within easy reach.

All serious incidents relating to the product must be reported to the manufacturer and the competent authority of the Member State.

1.1 Product identification

These instructions for use apply to the following models of appliance:

MEIKO TopLine Type M2 washer-disinfector

1.2 Delivery contents

The delivery contents include:

- MEIKO TopLine Type M2 washer-disinfector
- Documentation, for details see **Related documents.**

1.3 Related documents

In addition to these instructions for use, there are other documents that are available depending on the authorisation:

Operator (included in delivery contents)	**Authorised service technician**
EC/EU declaration of conformity	Service Manual
Short operating instructions	Installation and operational qualification
Specific positioning of care utensils	
Wiring diagram	
Installation instructions	

1.4 Presentation conventions

1.4.1 Warnings

⚠ **DANGER –** indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.

⚠ **WARNING –** indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death**.**

⚠ **CAUTION –** indicates a possible hazardous situation which, if not avoided, could result in minor or moderate injury or damage to property**.**

1.4.2 Notices on use

▶ **Note –** indicates useful and important information about the product or its use**.**

1.4.3 Award elements

Description of the markup elements used in this document:

- A bullet point designates an action step.

1. Successive action steps.

(1) Position numbers shown in parentheses in the text refer to position numbers in illustrations. The text associated with the illustration is always below or beside the respective illustration.

1.4.4 Symbols

The list shows the maximum possible symbols that can be used in conjunction with the washer-disinfector. The actual symbols applied vary depending on the design.

Symbol	Meaning	Symbol	Meaning
	Observe instructions for use		Disconnect before maintenance or repair
	Caution		Manufacturer
	Date of manufacture		Authorised representative in Switzerland
	Medical device		Unique product identifier
	Labelling of electronic and electrical equipment that may not be disposed of in household waste		Nemko electrical safety certification mark for North America
	European conformity, notified body identification number		Watermark certification mark for Australia
	Use hand protection		Use safety eyeware

1.4.5 Illustrations

The illustrations contained in this document are not necessarily true to the original or to scale. The illustration may deviate from the original, e.g. due to modifications to the product, but without diminishing the facts or comprehensibility.

2 Declaration of conformity

This section reproduces the content of the EC/EU Declaration of Conformity for the product. Contents that are already included in the instructions for use (e.g. intended use) are not listed again. The signed EC/EU Declaration of Conformity with serial number is enclosed with the product.

We declare under our sole responsibility for this Declaration of Conformity that this product complies with Regulation (EU) 2017/745 on medical devices.

Product designation

Washer-disinfector (MDA 0317)

Basic UDI-DI

4 050187 00324

Classification as per MDR (EU) 2017/745:

Class IIa according to Annex VIII, Rule 16

Applied conformity assessment procedure

Annex IX of Regulation (EU) 2017/745

Notified body as per MDR (EU) 2017/745

mdc medical device certification GmbH

Kriegerstraße 6, 70191 Stuttgart, Germany

mdc identification number 0483

Certificate number

D1182200009

Furthermore, we declare the conformity of the product with the following EU directives:

- 2011/65/EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, OJEU L174/88, 01/07/2011
- 2014/53/EU Directive on the placing of radio equipment on the market, OJEU L 153/62, 22 May 2014, amended by (EU) 2022/2380

Valid for products manufactured by:

12/04/2028

3 Safety

3.1 Correct use

3.1.1 Intended purpose

Only use the washer-disinfector for emptying, cleaning and thermally disinfecting human waste containers, such as:

- Bedpans, commode buckets and their covers
- Urine bottles
- Hospital containers, e.g. bowls, urine collecting containers
- Suction bottles
- Similar products as listed above, used for similar purposes.

3.1.2 User group

Nursing staff (older than 14 years) in clinics, nursing and/or rehabilitation facilities who have been verifiably instructed in the use of the product.

3.1.3 Environment of use

- Preferably utility rooms
- Flush-wall mounted appliance for installation in ensuite bathrooms of patient rooms (only for MEIKO TopLine 30 Type M2) in an enclosed space

3.1.4 Notes on correct use

The washer-disinfector is intended exclusively for commercial use. Any other use, modifications and alterations are not permitted and can lead to personal injury and damage to property.

Only use rinse aids/water softeners and detergents in our washer-disinfectors for which MEIKO has given its written approval.

Approved products:

- Rinse aid/water softener: Doyen SK 10/SK 22 E/SK 33 E
- Detergent: Doyen R 100/RS 120

Observe dosing agent warningshazard statements (see accompanying safety data sheets).

3.1.5 Determination of activities according to category of personnel

Persons Activity	Instructed nursing staff	Trained in-house technician	Authorised in-house technician/fitter (medical device consultant)
Installation/assembly			✓
Commissioning			✓
Operation, use	✓	✓	✓
Cleaning	✓	✓	✓
Change canisters		✓	✓
Checking safety devices		✓	✓
Troubleshooting		✓	✓
Troubleshooting, mechanical		✓	✓
Troubleshooting, electrical			✓
Maintenance			✓
Repairs			✓

3.2 Misuse

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

List of foreseeable misuses:

- Emptying of care utensils, although the holder is still equipped with freshly disinfected care utensils
- Inserting care utensils incorrectly
- Insertion of unsuitable utensils and objects (tableware)
- Disinfection of objects for which a different method of preparation is stipulated e.g. instruments
- Heating objects or keeping them warm (hot water bottles, pre-packaged food, etc.)
- Disposal of solvents or flammable liquids (fire hazard and risk of damage to appliances)

- Used for rubbish disposal (e.g. garbage, nappies, disposable gloves, syringes etc.). This also applies to excessive volumes of cellulose and disposable care utensils.
- Activating the controls with pointed or sharp objects
- Operation by untrained persons
- Use of incorrect or non-approved process chemicals
- Installing the canisters of process chemicals at an angle when empty (consequence: the appliance operates without chemicals and lime scale can be deposited)
- Filling the process chemical canisters with different liquid
- Failure to observe the specified maintenance cycles
- Use of the wash chamber door as a ladder or seat
- Use of the on-site mains disconnection device as an on/off switch.
- Use of load detection for dishes that are not intended.

3.3 Safety information

- Only use the washer-disinfector according to instructions (see page 9).

- Only use the washer-disinfector in its original condition without independent changes and in a technically perfect condition.
- Electrical connection must be carried out in accordance with the locally applicable regulations (e.g. HD 60364-1/IEC 60364-1/VDE 0100-100) so the appliance can be connected to the mains supply in accordance with the regulations for installers. However, national regulations for installers may differ. The appliance is intended for permanent connection to the on-site power supply and the on-site protective equipotential bonding and has been tested accordingly before being brought to market.
- Fuse protection

  Set up the machine according to the local conditions and according to the rated current (see rating plate) as a separately fused circuit (final circuit). Take note of the available connection variants.

- Main switch/mains connection cable

  Install a main switch with all-pole disconnection from the mains in accordance with the regulations for installers in the permanently wired on-site installation. The main switch must be located near the device and be easily accessible to operating personnel. The main switch must be clearly

assigned to the switch (labelling). The main switch must adhere to IEC 60947-1 and IEC 60947-3 (for USA and Canada to UL 60947-1 and UL 60947-3).

- Electrical safety

  The electrical safety of the machine is only ensured if the machine is connected to a properly installed protective conductor system. It is very important to verify this fundamental safety feature. If in doubt, have the local wiring checked by an electrician. The protective measures and the connection of the equipotential bonding of the machine and associated components must be carried out in accordance with the local regulations and the requirements of the local utility companies. Refer to the dimension sheet for the connection point. As an alternative, the operator can, acting on its own responsibility, use a mains-side residual current device (RCM or RCD) for personal protection. A type “A” (30 mA) according to IEC/EN 60755 is sufficient.

- Before opening the inspection door, disconnect the appliance from the power supply and secure it so that it cannot be turned on again; this also applies to other work on the appliance.
- The washer-disinfector does not generate targeted non-ionising radiation. For technical reasons, only the electrical appliances emit non-ionising radiation. In the immediate vicinity of the washer-disinfector, the influence of active implants (e.g. cardiac pacemakers, defibrillators) can be ruled out with a high degree of probability.

- The washer-disinfector operates with hot water and the temperature during thermal disinfection is above 80°C or more, depending on requirements. As a result, the washware and parts of the appliance (wash chamber, door) have a high temperature at the end of programme. There is a risk of burns, so take appropriate safety precautions. In addition, components of the steam generator in the appliance inspection room - especially its casing and neighbouring pipes - can have high surface temperatures during and after operation. Therefore, when working in the appliance inspection room, ensure sufficient distance from these components and use suitable heat protection if necessary.
- Do not place the washer-disinfector in a potentially explosive atmosphere or in areas subject to frost.

- If the washer-disinfector is damaged or leaking, this may be dangerous and pose a safety hazard. Immediately decommission the washer-disinfector and inform MEIKO Service.
- The water in the wash chamber and in the water tank is NOT safe to drink.
- Take care when handling dosing agents (water softeners/rinse aids and detergents). They are corrosive substances. Observe the applicable safety regulations! Use safety eyeware and protective gloves. Observe the manufacturer's safety instructions and safety data sheets when handling dosing agents.
- Do not sit or stand on the opened wash chamber door. This could damage the appliance and cause injury.
- Only use the approved dosing agents and do not mix them together.
- Keep the instructions for use legible and complete on the washer-disinfector.
- Make sure that the instructions for use are available to anyone operating the washer-disinfector.
- Observe the instructions for use for accessories and integrated third-party components.
- Do not put any objects on the washer-disinfector.
- Observe the installation conditions (see page 24).
- Secure the IT network to which the appliance is connected in accordance with the state of the art. This includes, in particular, configuration of secure WLAN settings and implementation of further technical protective measures.
- For IT networks in the healthcare sector, use of a firewall is strongly recommended to protect the appliance from unauthorised or unwanted data traffic, especially if the network is connected to the internet.
- An LED light source is used to illuminate the wash chamber and the door handle. Never look directly at the light source for more than 30 minutes a day.

3.4 What to do in the event of an emergency



In dangerous situations, disconnect from the power supply using the locally available mains isolator.

4 Product description

4.1 Variants

The washer-disinfector is available in the following models:

- MEIKO TopLine 10 Type M2 (wall-mounted)
- MEIKO TopLine 20 Type M2 (standing)
- MEIKO TopLine 30 Type M2 (wall installation)
- MEIKO TopLine 40 Type M2 (undercounter)

Equipment variants:

- DT-NDV: Centralised thermal disinfection with fitted low-pressure steam generator
- DT-NDD: Centralised thermal disinfection with building's installed low-pressure steam

All models are available for different operating voltages.

Other possible additional equipment:

- Dispenser for liquid cleaner (DR), e.g. Doyen R100
- AT - Automatic door
- Slop sink flushing
- Load detection, see page 19.

4.2 Functional description

Equipping the appliance

The care utensil is inserted into the holder, which is located on the inside of the wash chamber door. This makes sure that the care utensils are in the correct position for cleaning. The arrangement of the wash nozzles in the wash chamber guarantees perfect cleaning if the care utensils are positioned correctly.

When the wash chamber door is closed, the inserted containers are emptied and the care utensils are moved into the cleaning position. The wash chamber door is locked. The operator selects a cleaning programme on the glass operating panel and presses the programme start key. An automatic programme start after closing the wash chamber door can be set.

The appropriate program is suggested for devices with load detection (optional). Appliances with automatic wash chamber door (option) additionally allow touch-free operation.

Programme run

During the programme run, the handle lights up with a pulsating green light. The cleaning programme includes four phases:

- Precleaning with cold water.
- Cleaning with hot water.
- Thermal disinfection of the care utensil.
- Recooling and drying of the care utensils.

Thermal disinfection and recooling

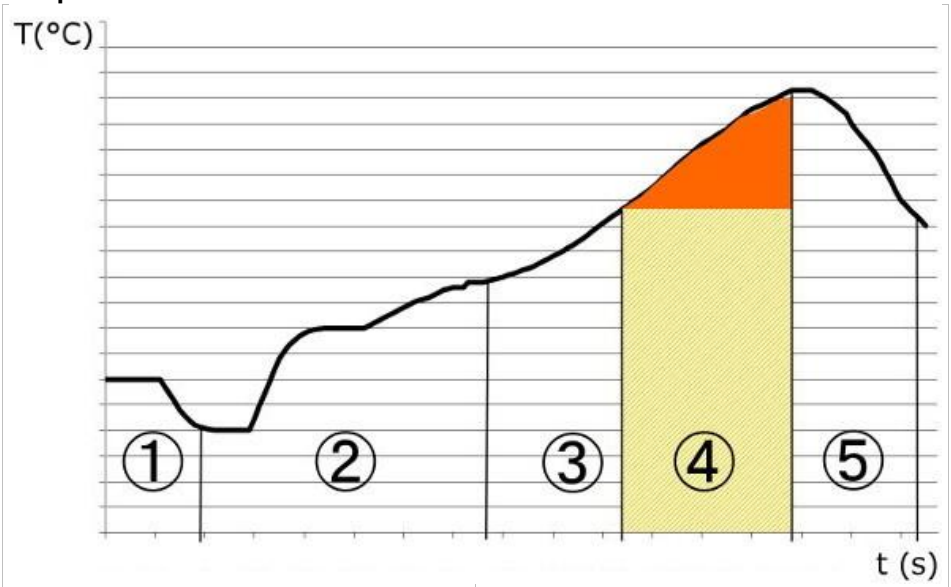
Thermal disinfection works according to the A_0 process. The term A_0 refers to a way of measuring (duration/temperature) how microorganisms are eliminated by moist heat disinfection methods. Thermal disinfection is fulfilled when the preset A_0 value is reached on all surfaces to be disinfected.

In order to lower the temperature of the care utensils, a recooling step is carried out. In this process, the high temperature is reduced with cool, filtered air and the care utensils are dried.

At the end of the programme, the wash chamber door is unlocked. The care utensils can be removed and must be visually checked by the operator.

The disinfection capability complies with the capability required DIN ISO 15883 Part 3, ”Requirements for and Testing of Cleaning/disinfection appliances using Thermal Disinfection for Containers for Human Excreta” which specifies a minimum A_0 value of 60.

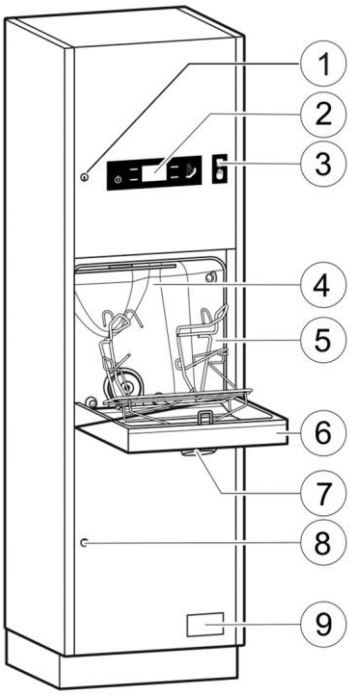
Temperature curve of wash chamber/care utensils



t(s) = Time in seconds	T(°C) = Temperature in °C
1 Pre-cleaning with cold water 2 Cleaning steps 1-3 with hot water 3 Heating	4 Thermal disinfection A_0 60 5 Recooling/drying

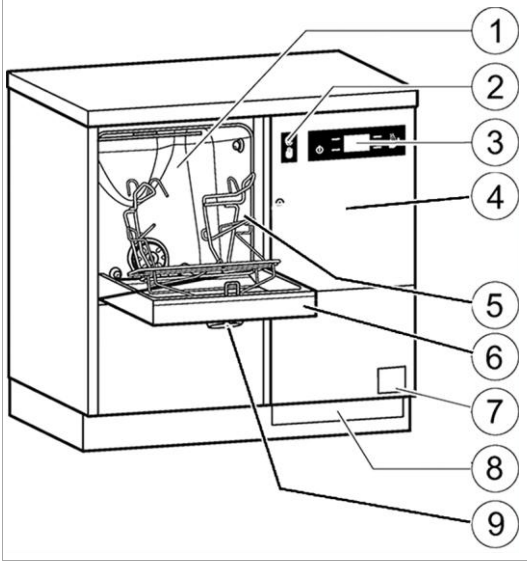
4.3 Overview illustration

MEIKO TopLine 20 Type M2/MEIKO TopLine 10 Type M2 (wall-mounted)



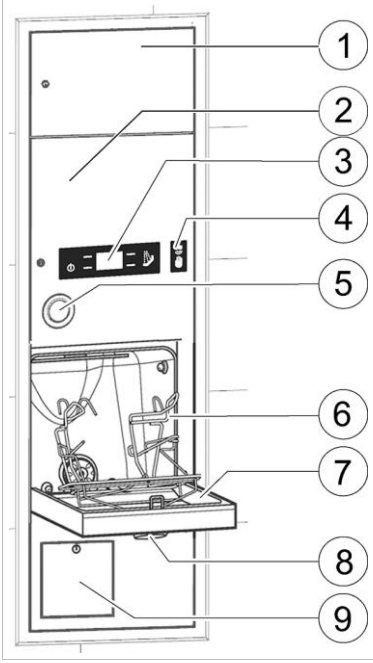
1 Inspection door
2 Glass operating panel
3 Infrared sensor for automatic wash chamber door (optional)
4 Wash chamber with cleaning nozzles
5 Load detection (optional)
6 Wash chamber door with holder
7 LED indicator handle
8 Inspection door, chemicals
9 Foot switch (optional)

MEIKO TopLine 40 Type M2



1 Wash chamber with cleaning nozzles
2 Infrared sensor for automatic wash chamber door (optional)
3 Glass operating panel
4 Inspection door
5 Load detection (optional)
6 Wash chamber door with holder
7 Foot switch (optional)
8 Drawer for chemicals (optional)
9 LED indicator handle

MEIKO TopLine 30 Type M2



1 Storage cabinet, optional for 2x 5 litre chemical canisters
2 Inspection door
3 Glass operating panel
4 Infrared sensor for automatic wash chamber door (optional)
5 WC flushing push button (optional)
6 Load detection (optional)
7 Wash chamber door with holder
8 LED indicator handle
9 Maintenance cover with compartment for chemicals

4.4 Options

4.4.1 Detergent dosing

An additional dosage of a detergent is recommended for heavily soiled care utensils. The detergent dosing comprises a complete dosing system (suction lance, hoses, dosing monitoring and dosing unit), which is installed in the appliance.

4.4.2 Load detection



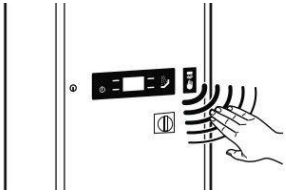
The appliance automatically detects suitable care utensils. Appropriate care utensils are shown in the care utensil chart (see page 21). Child sinks, kidney dishes and utensil racks are not suitable for load detection.

When closing the door, the appliance detects inserted care utensils and reacts according to the presetting:

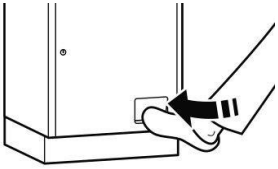
- Programme suggestion only (requires start by operator)
- Programme suggestion, wait time for correction by the operator, automatic programme start

Regardless of the default setting, the operator can change the selection of the programme and the disinfection performance.

4.4.3 Automatic door (AT)



- Touchless door opening with sensor MEIKO TopLine 10, 20, 30, 40 Type M2, see page 43.



- Touchless door opening with foot switch MEIKO TopLine 10, 20, 40 Type M2, see page 44.

4.4.4 Slop sink flushing with separate slop sink unit

It is possible to wish a sink with the integrated pump of the washer-disinfector. The programme for slop sink flushing is started directly on the appliance, see page 41.

4.4.5 Operating log with MEIKO Assist Pro app

The appliance can be connected to a device (e.g. mobile phone, laptop) via Bluetooth. It is then possible to read out appliance data using the MEIKO Assist Pro app or the M-Commander PC software. The MEIKO Assist Pro app replaces the MEIKO Connect app.

4.5 WLAN and Bluetooth

This product is network-compatible and can be connected to the local network or a mobile device to use functions via MEIKO software.

In countries outside Europe, the function can only be used if the wireless module has local approval. The currently available approvals can be found at https://www.meiko.com/connectivity.

The Bluetooth interface is used by the MEIKO-authorised service technician to connect to the appliance and change settings. The operator can retrieve appliance data via the interface using MEIKO Assist Pro.

The WLAN interface allows the operator to integrate the appliance into the on-site WLAN network and retrieve data from the appliance using software provided by MEIKO (e.g. MEIKO Assist Pro).

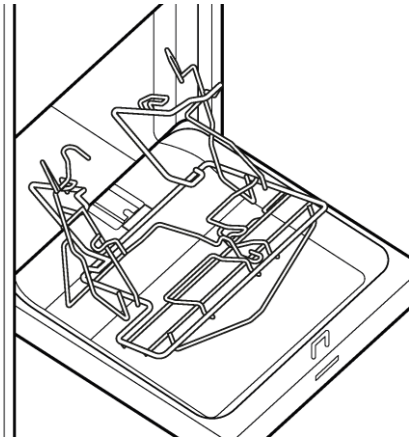
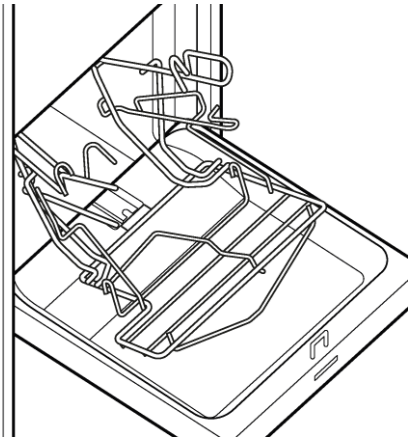
The MEIKO Assist Pro app can be downloaded from the Google Play Store or the Apple App Store.

4.6 LED indicator handle

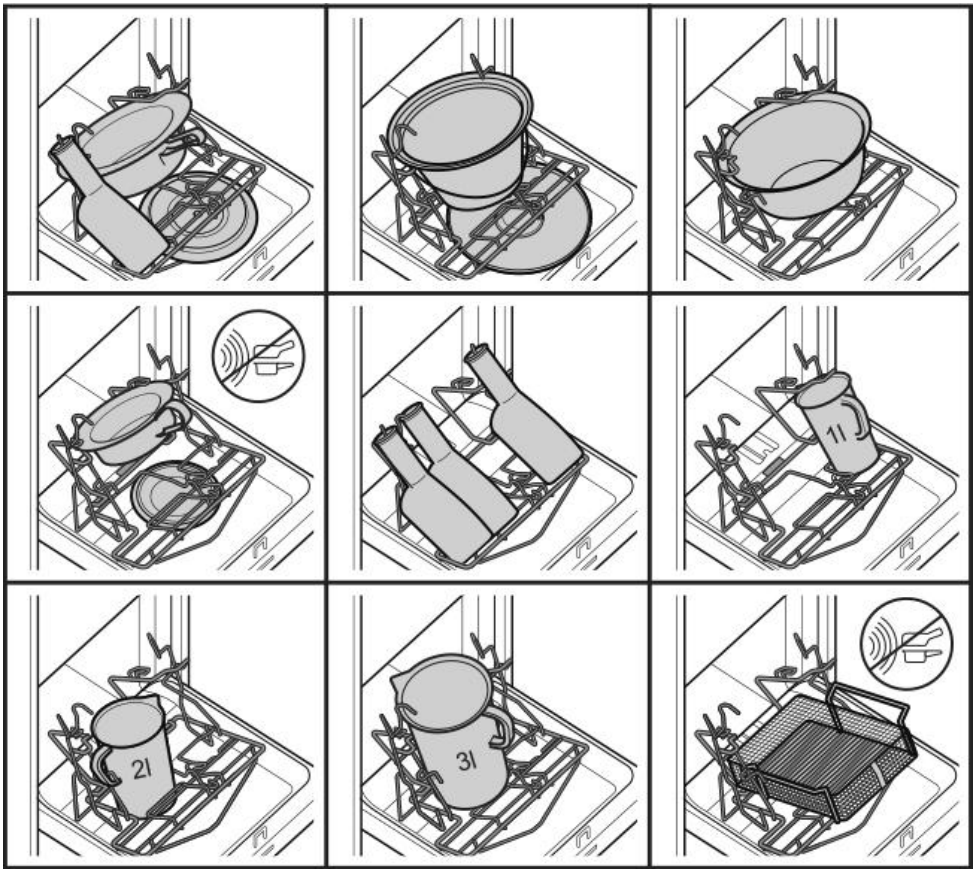
		
Blue **Ready for operation**	**Green** **Programme is running**	**Red** **Malfunction / important message**

4.7 Holder

The holder takes the care utensils and brings them into the optimal position for cleaning and disinfection.

	
Holder SUH 1	Holder SUH 2

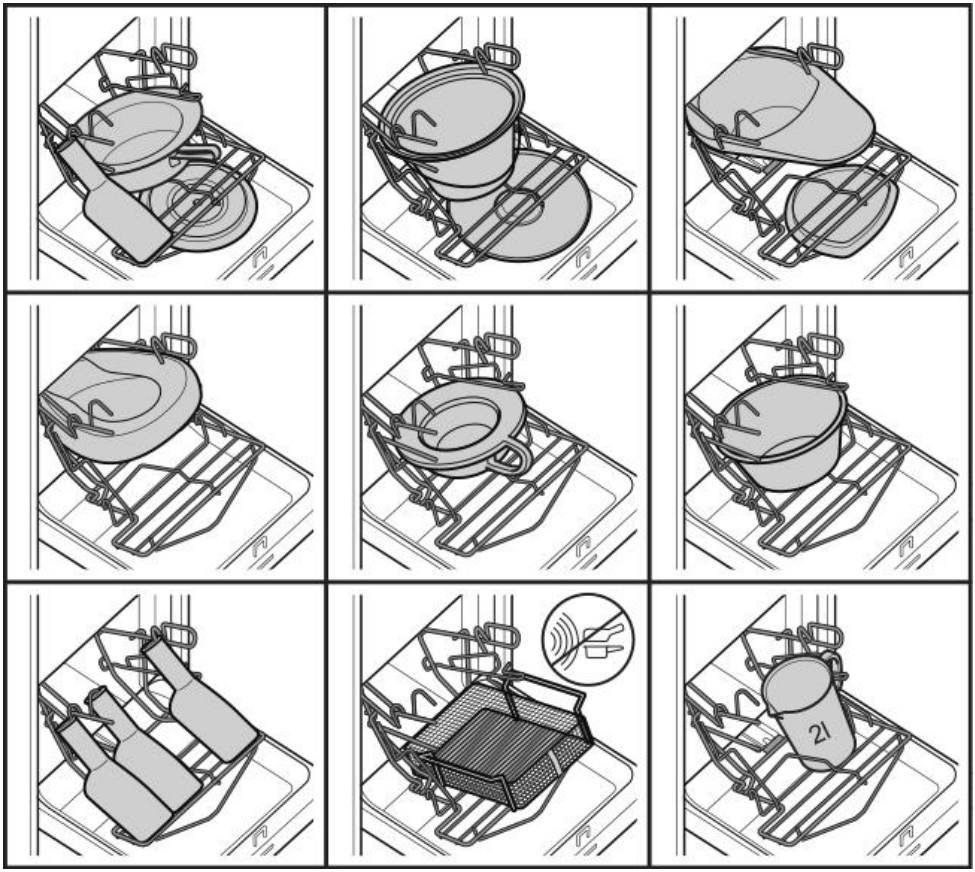
How to insert the care utensils in the holder SUH 1





Not suitable for load detection

How to insert the care utensils in the holder SUH 2





Not suitable for load detection

Positions of special holder

- See separate care utensil image

5 Technical data

Protection degree Protection class	MEIKO TopLine 10/20/30/40 Type M2: IP X4 Class I in accordance with VDE 0750 / IEC 601
Installation conditions	Max. height 2000 m above NHN, 5–40°C with max. 80% relative humidity, exclusively for indoor use, pollution degree 2, overvoltage category 2, mains voltage tolerance ± 10%, min. illuminance ambient light: 200 lx
Fresh water supply line	Type AA air gap, according to EN 1717 or EN 61770
On-site supply line	DN 20 (¾ inch), cold water 5-25°C, max. demand 0.13 m3/h; hot water 45-70°C, max. demand 0.31 m^3. From a biological perspective, the fresh water must be of drinking water quality. This also applies to processed water.
Water flow pressure	100–500 kPa, before the solenoid valve
Water flow	18 l/min
Boiler content DT-NDV	2.1 l
Steam pressure DT-NDD	10–50 kPa
Steam flow DT-NDD	Approx. 5 kg/h

<table>
<tr><td>Noise emission</td><td colspan="4">Workplace noise emissions: L_{pA} = 48.2 dB(A)
The emission sound pressure level at the workplace for the documented load has been determined on the basis of: DIN EN ISO 11204; precision class 3, measurement reliability ±5 dB.
Sound power level LWA = 58.5 dB(A)
The sound power level from the acoustic pressure measurements has been determined in accordance with the casing surface process for the documented load on the basis of DIN EN ISO 3746; precision class 3, measurement reliability ±3 dB.</td></tr>
<tr><td>Disinfection performance</td><td colspan="4">A_0 value can be adjusted from 60–12,000</td></tr>
<tr><td>Heat emission</td><td colspan="4">For 8 programme runs/hour:
Total 0.7 kW/sensitive 0.45 kW/latent 0.25 kW</td></tr>
<tr><td>Total volume of the chamber</td><td colspan="4">62.45 l</td></tr>
<tr><td rowspan="2">Net weights</td><td>MEIKO TopLine 10 Type M2</td><td>81 kg</td><td>MEIKO TopLine 30 Type M2</td><td>LT1 with WC 34 kg, LT2 66 kg</td></tr>
<tr><td>MEIKO TopLine 20 Type M2</td><td>83 kg</td><td>MEIKO TopLine 40 Type M2</td><td>81 kg (incl. plinth and cover)</td></tr>
<tr><td>Area for operation and maintenance</td><td colspan="4">There must be a free area in front of the appliance for operation and maintenance. This is (0.8 m or appliance width) × 0.8 m.
The swivelling ranges of the wash chamber door and inspection doors must be planned.</td></tr>
</table>

Transportation	
Temperature [°C]	-20°C–40°C
Max. rel. humidity [%]	80 %
Type of packaging	Only in the original transport packaging

Storage with transport packaging	
Temperature [°C]	-20°C–40°C
Max. rel. humidity [%]	80 %
Location	Also possible outdoors temporarily (max. 14 days), canopy recommended

Storage without transport packaging	
Temperature [°C]	-20°C–40°C
Max. rel. humidity [%]	80 %
Location	Indoors only

Dimensions [mm]		**MEIKO TopLine 10 Type M2**	**MEIKO TopLine 20 Type M2**	**MEIKO Top-Line 30 Type M2 installation frame**	**MEIKO TopLine 40 Type M2**
	Height	1630	1730	2210	900
	Width	500	500	650	900
	Depth	450	450	450	600

Technical data of the radio module	
Frequency band	2412–2484 MHz
WLAN standard	IEEE 802.11 b/g/n
Bluetooth version	4.2
Max. transmission power	20 dBm

Electrical characteristics DT-NDV

Rated current	Rated power	Mains voltage (± 10 %)
12.0 A	2.5 kW	1 N-PE, 220 V, 50 Hz
12.2 A	2.5 kW	1 N-PE, 220 V, 60 Hz
12.5 A	2.8 kW	1 N-PE, 230 V, 50 Hz
12.7 A	2.8 kW	1 N-PE, 230 V, 60 Hz
13.0 A	3.0 kW	1 N-PE, 240 V, 50 Hz
11.0 A	2.1 kW	2 PE, 200 V, 50 Hz
11.2 A	2.1 kW	2 PE, 200 V, 60 Hz
13.0 A	3.0 kW	2 PE, 240 V, 50 Hz
13.6 A	3.7 kW	3 PE, 200 V, 50 Hz
13.8 A	3.7 kW	3 PE, 200 V, 60 Hz
14.5 A	4.3 kW	3 PE, 220 V, 50 Hz
14.7 A	4.3 kW	3 PE, 220 V, 60 Hz
14.9 A	4.6 kW	3 PE, 230 V, 50 Hz
15.1 A	4.6 kW	3 PE, 230 V, 60 Hz
10.4 A	4.3 kW	3 N-PE, 380 V, 50 Hz
10.6 A	4.3 kW	3 N-PE, 380 V, 60 Hz
10.7 A	4.6 kW	3 N-PE, 400 V, 50 Hz
10.9 A	4.6 kW	3 N-PE, 400 V, 60 Hz
10.9 A	4.9 kW	3 N-PE, 415 V, 50 Hz
14.5 A	4.3 kW	3 N-PE, 220 V, 50 Hz
14.7 A	4.3 kW	3 N-PE, 220 V, 60 Hz

Electrical characteristics DT-NDV USA + Canada

Rated current	Rated power	Mains voltage (± 10 %)
11.4 A	2.2 kW	1 Gnd, 208 V, 60 Hz
12.5 A	2.8 kW	1 Gnd, 230 V, 60 Hz
13.2 A	3.0 kW	1 Gnd, 240 V, 60 Hz
11.4 A	2.2 kW	2 Gnd, 208 V, 60 Hz
12.5 A	2.8 kW	2 Gnd, 230 V, 60 Hz
11.4 A	4.4 kW	3 Gnd, 240 V, 60 Hz
14.0 A	3.9 kW	3 Gnd, 208 V, 60 Hz
14.9 A	4.6 kW	3 Gnd, 230 V, 60 Hz

Electrical characteristics DT-NDD

Rated current	Rated power	Mains voltage (± 10 %)	Back-up fuse
4,9 A	0,8 kW	1 NPE, 220 V, 50 Hz	16 A
4,9 A	0,8 kW	1 NPE, 230 V, 50 Hz	16 A
4,9 A	0,8 kW	1 NPE, 240 V, 50 Hz	16 A
5,1 A	0,8 kW	1 NPE, 220 V, 60 Hz	16 A
5,1 A	0,8 kW	1 NPE, 230 V, 60 Hz	16 A
5,1 A	0,8 kW	1 NPE, 240 V, 60 Hz	16 A
4,9 A	0,8 kW	2 PE, 200 V, 50 Hz	16 A
5,1 A	0,8 kW	2 PE, 200 V, 60 Hz	16 A

Electrical characteristics DT-NDD USA + Canada

Rated current	Rated power	Mains voltage (± 10 %)	Back-up fuse
5,1 A	0,8 kW	1 Gnd, 208 V, 60 Hz	15 A
5,1 A	0,8 kW	1 Gnd, 230 V, 60 Hz	15 A
5,1 A	0,8 kW	1 Gnd, 240 V, 60 Hz	15 A
5,1 A	0,8 kW	2 Gnd, 208 V, 60 Hz	15 A
5,1 A	0,8 kW	2 Gnd, 230 V, 60 Hz	15 A
5,1 A	0,8 kW	2 Gnd, 240 V, 60 Hz	15 A

5.1 FCC Compliance Statement USA

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

5.2 IC Compliance Statement CANADA

CAN ICES-003(B) / NMB-003(B)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

6 Assembly

Note

To install the washer-disinfector, see installation instructions.

Authorisation for installation:

- Installation of the appliance may only be performed by a specialist company.
- Installation of the fresh water connection, waste water connection, and steam connection may only be carried out by water installation companies.
- Electrical installation may only be carried out by qualified electricians.

7 Commissioning

Note

To set up the washer-disinfector, see installation instructions.

Authorisation for commissioning

- Commissioning may only be performed by a service technician authorised by MEIKO.

8 Operation/use

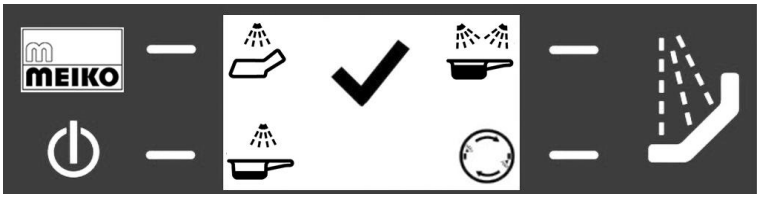
8.1 Glass control panel

Note

For switching to one touch operation, see page 62.



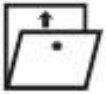
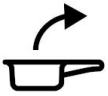
Normal view

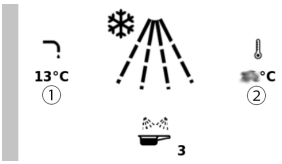
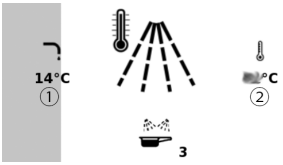
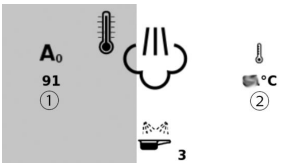
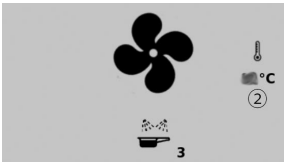


One touch view

Main screen	
Key/symbol	**Meaning**
	**Service access key/wake-up key** Opens code entry window for advanced settings, see page 41.
	**On/off key** Switching the device on and off
	**Confirmation keys active and inactive** Meaning/function is shown on the display next to the relevant key (see the table below)
	**Programme start key** Illuminated blue: device is ready for operation Illuminated green: cleaning programme active
	**Device status** Ready for operation / programme phase
	**Programme selection,** see page 41**.** Shown inverted: active programme

Confirmation key symbols	
Symbol	**Meaning**
	**Menu navigation** Up/down; right/left; to last position
	**Entry** Confirm entry; back without change
	**Change values** Increase/decrease value, press and hold for fast counting
	**Home key** Return to the main level
	**Help** Further notes on error messages
	**Action menu / info menu** Advanced settings/information after code entry, see page 45.

Status displays			
Symbol	**Meaning**	**Symbol**	**Meaning**
	**Device switched off**		**Device ready for operation**
	**Door open**		**Preheating**
	**Cold cleaning**		**Warm cleaning**
	**Disinfection**		**Cooling/drying**
	**End of programme**		**Remove care utensils**
	**CAUTION! Hot care utensils!**		

Status displays	
Programme phases	
	**Cold cleaning** **Bar*: Programme progress** 1 Fresh water temperature 2 Steam generator/wash chamber temperature
	**Warm cleaning** **Bar*: Programme progress** 1 Fresh water temperature 2 Steam generator/wash chamber temperature
	**Disinfection** **Bar*: Programme progress** 1 A0 set value / A0 actual value or value of another disnfection process 2 Steam generator/wash chamber temperature
	**Cooling/drying** **Bar*: Programme progress** 3 Wash chamber temperature

* Colour and display of the bar are configurable.

8.2 Clean and disinfect care utensils (programme cycle)

⚠ WARNING – Risk of explosion and fire due to solvents or flammable liquids

- Do not dispose of solvents or flammable liquids via the appliance.

⚠ WARNING – Scalding due to high temperatures

- Let care utensils cool sufficiently before removal.

⚠ WARNING – Trapping in wash chamber door

- When opening and closing the wash chamber door, make sure that nothing is trapped in the door.
- If you are unsure about how to remove blockages, call service engineer or service technician to remove the blockage.

⚠ WARNING – Risk if infection due to insufficient cleaning

- Select a cleaning programme according to the pollution degree and the type of care utensil, see page 41.

⚠ WARNING – Risk of infection from residual dirt

- Check the care utensils for residues when removing them from the appliance.

⚠ CAUTION – Unsatisfactory cleaning results due to defective holder

- Make sure that the holder is not bent or deformed (e.g. due to unforeseen care utensil).
- Place care utensils according to setup.

⚠ CAUTION – Damage to the appliance due to jamming or blockage of the drain

- Place care utensils according to picture.
- Make sure that care utensils do not slide out of the holder for care utensils and urine bottle.
- Make sure that no pulp or similar and no utensils enter the wash chamber.

⚠ CAUTION – Corrosion from foreign iron

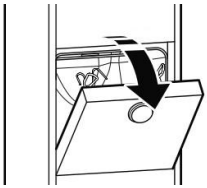
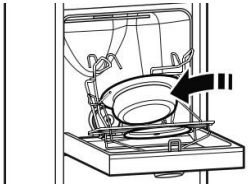
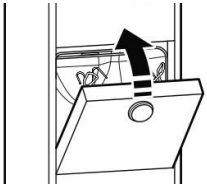
- Make sure that no foreign iron or other metal particles (e.g. copper filings) enter the washer-disinfector through the clean water supply.

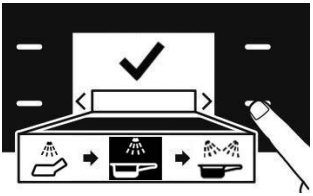
8.2.1 Clean care utensils (basic version of the appliance)

Only touch used care utensils when wearing protective gloves. Observe the hygiene regulations of the operator!

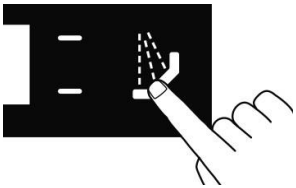
Recommendation

Clean care utensils immediately after use. The maximum non-use time for care utensils is 30 minutes.

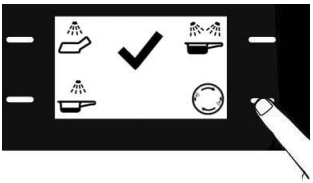
 For appliances with the WC version, the WC cover must be closed.	 1. Open the wash chamber door.
 2. Insert care utensils in the prescribed positions in the holder for care utensils and urine bottles.	 3. Close the wash chamber door.



4. Select the cleaning programme, see page 41.



5. Press the programme start key.

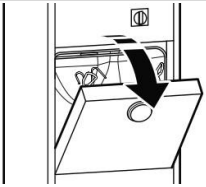


With one touch operation, the cleaning programme starts immediately after program selection!

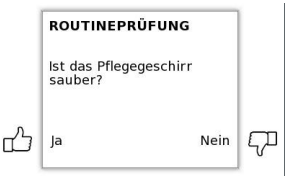
The programme progress is displayed by means of a progress bar and symbols for the cold cleaning, warm cleaning, disinfection and cooling/drying sequences, see page 31.

During the programme, the wash chamber door is locked.

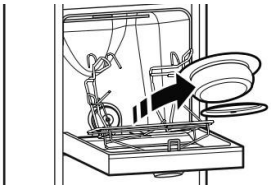
After end of programme:



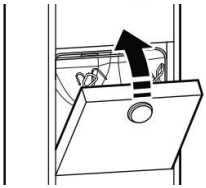
6. Open the wash chamber door.



7. Perform a visual check of the care utensils and answer yes/no to the question about cleanliness. If cleaning is insufficient, select intensive programme or subject to alternative treatment.



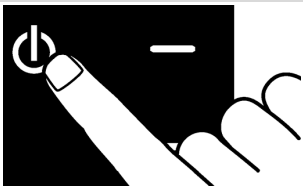
8. Remove care utensils.



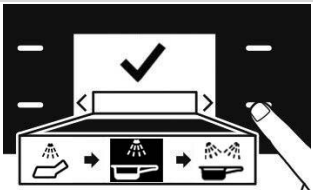
9. Close the wash chamber door.

8.2.2 Cancel programme

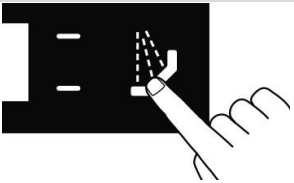
In case the wrong cleaning programme has been started, it is possible to cancel the cleaning programme and start the correct programme. The wash chamber door remains locked until a complete programme run has taken place.



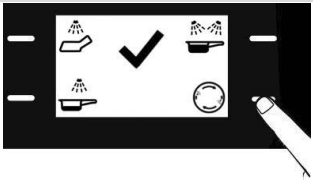
1. Press and hold the On/off key for approx. 1 s.



2. Select cleaning programme, see page 41.

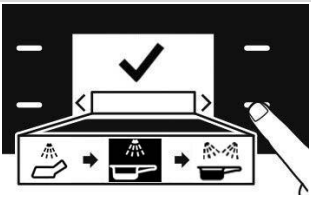


3. Press programme start key

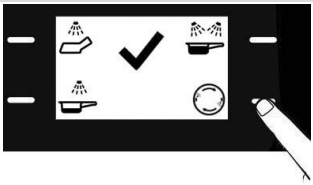


With one touch operation, the cleaning programme starts immediately after program selection!

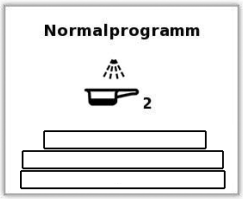
8.2.3 Selecting the cleaning programme



When the appliance is ready for operation, the programme selection bar is located at the bottom centre of the display. The set programme is displayed inverted and can be changed with the arrow keys.



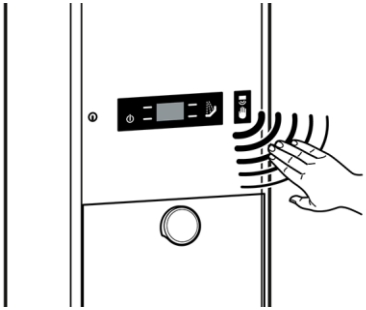
In one-touch operation, the cleaning programmes can be started directly with the confirmation keys.



After a short waiting time, details of the selected programme are displayed (running time, temperature value, etc.). With one-touch operation, the cleaning programme starts immediately!

Version	Cleaning programmes	
	Symbol	Meaning
MEIKO TopLine Type M2 Basic version		**Short programme** Cleaning and disinfection of care utensils with liquids (e.g. urine bottles). A_0 value: 60 Running time: 420 s (DT-NDV), 325 s (DT-NDD) Minimum temperature 70°C
		**Standard programme** Cleaning and disinfection of care utensils with human excreta (e.g. bedpans). A_0 value: 60 Running time: 430 s (DT-NDV), 385 s (DT-NDD) Minimum temperature 70°C
		**Intensive programme** Cleaning and disinfection of care utensils with strongly adhering human excreta (e.g. commode buckets). A_0 value: 60 Running time: 450 s (DT-NDV), 425 s (DT-NDD) Minimum temperature 70°C
Option		**Slop sink flushing** Cleaning the separate slop sink unit. Running time: 23 s

8.2.4 Automatic door (AT), operation with sensor (option)

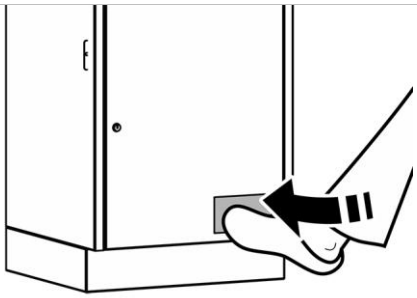


All AT (Automatic Door) models are equipped with a sensor which allows the wash chamber door to be open and shut automatically.

Depending on the presetting of the washer-disinfector, the cleaning programme starts automatically after the door is closed.

- To open and close the door, place your hand briefly 2-8 cm in front of the sensor.
- Device with load detection: use the sensor/foot switch to close the door and start the programme.
- Device without load detection: select/start programme.

8.2.5 Automatic door (AT), operation with foot switch (option)



The door of the washer-disinfector can also be opened by means of a foot switch. Depending on the presetting of the washer-disinfector, the cleaning programme starts automatically after the door is closed.

- Press the foot switch to open and close the wash chamber door.
- Device with load detection: use the sensor/foot switch to close the door and start the programme.
- Device without load detection: select/start programme.

8.2.6 Door lock with code lock / code entry (option)

Note

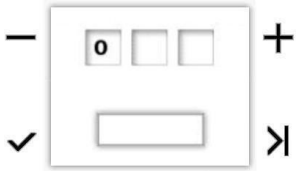
Operations that can be protected with code lock:

- Open the door after end of programme
- Programme start
- Both

The code is set to **1** ex works. It can be changed by the service technician.

Prerequisite:

- Cleaning programme finished.
  AND/OR
- Appliance has been equipped with care utensils and is waiting for the programme to start



The code entry prompt appears.



1. Use the confirmation keys to set the value.



2. Confirm entry.

Possible courses of action:

- Start cleaning programme, see page 41, OR
- Remove care utensils as usual,see page 37.

8.3 Factory setting of the A_0 value

The factory setting for the disinfection parameter for the A0 value is 60.

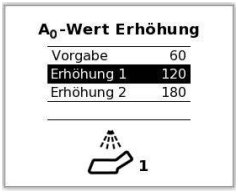
To set another A0 value if required, contact MEIKO Service.

8.4 Select A_0 value

Optionally, the A_0 value can be increased up to 12000 in predefined steps for a one-time programme run, depending on the parameterisation of the appliance. In the selection menu only values are displayed that are greater than/equal to the preset A_0 value of the programme.



1. Press and hold the programme start key.



2. The window for selecting the A_0 value appears and the selection bar moves from top to bottom. At the desired value, release the programme start key to start the programme.

In addition to the described one-time increase of the A_0 value, the appliance optionally offers the possibility to temporarily increase the A_0 value for several/all appliance in a building via a central external control system, e.g. in case of a pandemic.

8.5 Replace canister

⚠ WARNING – Risk of injury from contact with chemicals

- Use safety eyeware.
- Wear protective gloves.
- Observe the safety regulations and safety data sheets of the manufacturers of the dosing agents.
- In case of emergency, follow the first aid measures of the manufacturers of the dosing agents.
- Hang up a description of the first aid measures near the appliance.

Note

The canisters containing the process chemicals may only be changed by an instructed in-house technician or a service technician authorised by MEIKO!

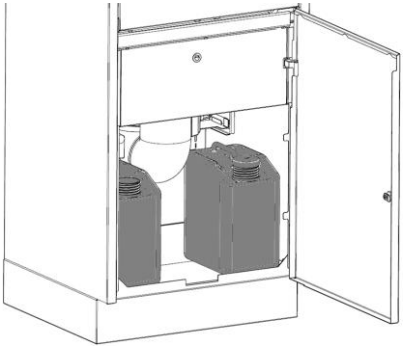
Note

It is possible that rinse aids/water softeners other than those approved by MEIKO have a lower calcium binding capacity. An unsuitable rinse aid/softener may cause limescale to build up on heating elements and on wash nozzles. The cleaning result may be affected.

When using a detergent from another manufacturer or a different dosing agent variant, flush the complete detergent dosing system with water.

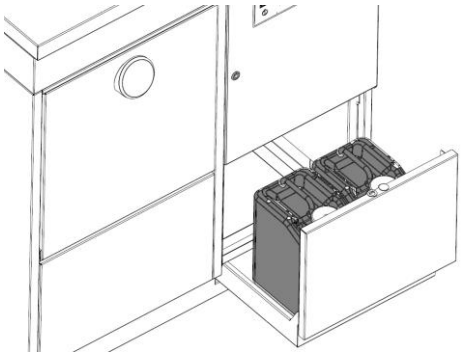
In particular, chemicals and higher temperatures in the process, as well as mechanical loads when holding and transporting, can have a negative impact on the washware.

MEIKO TopLine 10 Type M2/MEIKO TopLine 20 Type M2



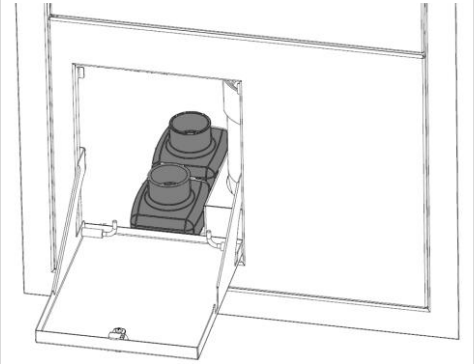
1. Open the inspection door.
2. Pull the suction lance out of the canister.
3. Remove the empty canister.
4. Insert the new canister closed. The canister must stand up straight.
5. Remove the lid.
6. Connect the suction lance to the canister. The suction lance must be vertical in the canister.
7. Close the inspection door.
8. Vent the dosing system, see page 63.

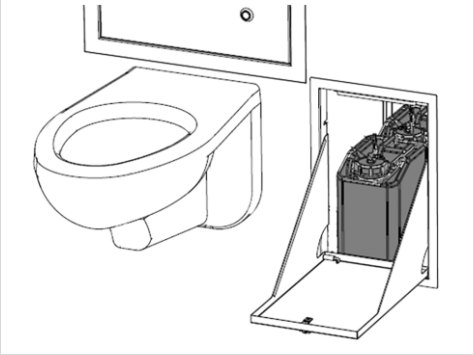
MEIKO TopLine 40 Type M2



1. Open the drawer (option).
2. Pull the suction lance out of the canister.
3. Remove the empty canister.
4. Insert the new canister closed. The canister must stand up straight.
5. Remove the lid.
6. Connect the suction lance to the canister. The suction lance must be vertical in the canister.
7. Close the drawer.
8. Vent the dosing system, see page 63.

MEIKO TopLine 30 Type M2





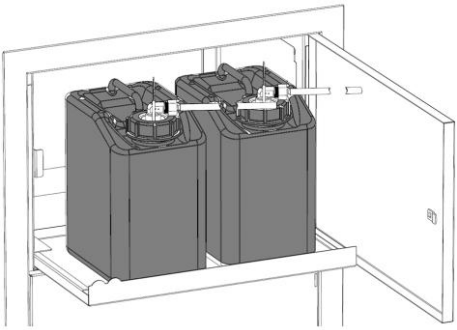
The top illustration shows the standard version with 1-litre canister, the bottom illustration shows the option with 5-litre canister.

1. Open the maintenance cover.
2. Pull the suction lance out of the canister.
3. Remove the empty canister.
4. Insert the new canister closed. The canister must stand up straight.
5. Remove the lid.
6. Connect the suction lance to the canister. The suction lance must be vertical in the canister.
7. Close the maintenance cover.
8. Vent the dosing system, see page 63.

MEIKO TopLine 30 Type M2 – 5-litre canister option

⚠ CAUTION – Risk of falling!

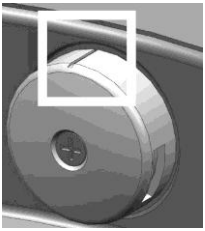
- Use safe climbing aids.
- Do not work overhead.



► The main switch is turned off.

1. Open the storage cabinet.
2. Pull out the drawer.
3. Pull the suction lance out of the canister.
4. Remove the empty canister.
5. Insert the new canister closed. The canister must stand up straight.
6. Remove the lid.
7. Connect the suction lance to the canister. The suction lance must be vertical in the canister.
8. Push in the drawer.
9. Close the storage cabinet.
10. Vent the dosing system, see page 63.

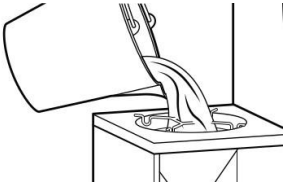
8.6 Perform slop sink flushing (option)



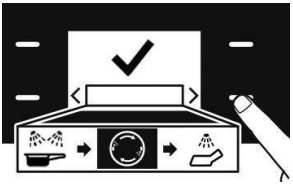
⚠ CAUTION – Poor cleaning result of the slop sink flushing and splashing water due to incorrectly aligned cleaning nozzles

- The nozzle groove must be aligned to the graining in the funnel.
- Use a Phillips screwdriver to loosen the fixing screws, align the nozzles and tighten the screws manually.

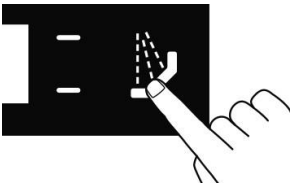
When handling soiled containers, observe the operator's hygiene regulations!



1. Pour the contents of the container into the slop sink unit.



2. Use the confirmation keys to select the slop sink flushing programme.



3. Press the programme start key.

Rinsing for the separate slop sink unit starts and runs for the set time until the end of the programme. The programme progress is shown by means of a progress bar in the display. During the programme sequence, the wash chamber door is locked.

8.7 Malfunctions

⚠ WARNING – Trapping in wash chamber door

- When opening and closing the wash chamber door, make sure that nothing is trapped in the door.
- If you are unsure about how to remove blockages, call service engineer or service technician to remove the blockage.

Occasional malfunctions

Malfunction	Possible cause	Note/remedy
Door blockage during automatic closing with sensor or foot switch	Incorrectly inserted/unsuitable care utensils in the holder	• Reverse mode is activated automatically: the wash chamber door opens slightly and releases the blockage. • Operate the infrared proximity switch or foot switch to open the door completely. • Remove the blockage. • If there is no blockage, inform an in-house technician or service technician.
Door blockage when opening after programme end with sensor or foot switch	Care utensils that have fallen out of the holder are preventing the door from opening	• Reverse mode is not activated: the wash chamber door stops. The display shows error message 702. Infrared proximity switch and foot switch are deactivated. • Remove the blockage. • Confirm the error message. • Use the appliance as usual. • If there is no blockage, inform an in-house technician or service technician.

Malfunction	Possible cause	Note/remedy
Incomplete cleaning cycle	Programme interruption by operator	• Run the complete cleaning cycle. • In the event of an appliance malfunction, safe access to the care utensil in the appliance is only possible for authorised persons (e.g. service technicians).

Malfunction	Possible cause	Note/remedy
Care utensils not clean after programme run	Care utensils unsuitable or incorrectly inserted Wrong programme selected Load detection has detected incorrect care utensils Residues are too firmly dried	• Check position/suitability of the care utensil • Correct programme selection and start again • Check the positioning of the care utensils to see if they are suitable for load detection • The care utensils must be subjected to alternative cleaning. The responsibility for suitable cleaning lies with the operator. MEIKO recommends that the care utensils be subjected to basic manual cleaning and subsequent disinfection using appropriate protective equipment.

8.7.1 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 in accordance with the information text and the corresponding recommended action.
- Red messages usually require the deployment of an authorised service technician.

No.	Display text	Explanation / actions
2	Carry out maintenance soon	• Advance notification; arr. maintenance appointment if necessary
3	Carry out maintenance	• Maintenance interval reached or exceeded, have maintenance carried out by service
9	No washware detected	• Check the position of the washware in the holder • Unsuitable washware used • If necessary, call a service technician
10	Hot washware	• Allow washware to cool down • Wear protective gloves if necessary.
101	S1 door switch interrupted	• Alarm message! • Device switches to the operating state MACHINE OFF • No intervention/remedy possible by the operating personnel • If necessary, the door can only be opened by entering a code (service technician) • Call service technician!
102	Leak water in base drip tray	
103	Drain blocked	
104	Swing check valve on blower not sealed	

No.	Display text	Explanation / actions
200	No signal from level sensor	• Alarm message! • Device switches to the operating state MACHINE OFF • No intervention/remedy possible by the operating personnel • If necessary, the door can only be opened by entering a code (service technician) • Call service technician!
203	Cold water not filled	
204	Hot water not filled	
205	Timeout on filling	
206	Pump run time too long	
210	Cold water temperature too high -> contact technician (to open door)	
211	Hot water temperature too low	
212	Hot water temperature too high	
213	Slop sink flushing pump run time too long	
220	Inlet temperature sensor: short circuit	
221	Inlet temperature sensor: cable break	
301	Low-pressure steam generator temperature sensor: short circuit	• Alarm message! • Device switches to the operating state MACHINE OFF • No intervention/remedy possible by the operating personnel • If necessary, the door can only be opened by entering a code (service technician) • Call service technician!
302	Low-pressure steam generator temperature sensor: wire break	
303	Low-pressure steam generator pre-heating temperature not reached	
304	Disinfection temperature not reached	
305	Disinfection temperature too high	
306	Short circuit on temperature sensor 1 on chamber	
307	Cable break on temperature sensor 1 on chamber	
308	Temperature in LPSG too high	
310	A_0 value not achieved	
311	On site steam pressure too high	
312	PTC wash chamber 1 or 2 faulty	
313	Short circuit on temperature sensor 2 on chamber	

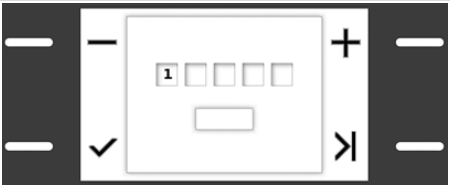
No.	Display text	Explanation / actions
314	Cable break on temperature sensor 2 on chamber	
315	Level not reached in low-pressure steam generator	
316	No dip below level in low-pressure steam generator	
401	Rinse aid/water softener empty	• Check canister, replace if necessary • Check suction lances fit correctly • Vent dosing system • If this error message reoccurs, call a service technician
402	Rinse aid/water softener dosing monitoring, go to action menu and execute ventilation	
403	Ventilation unsuccessful	
420	Canister almost empty (rinse aid/water softener)	• Keep new canister available
421	Rinse aid/water softener dosing critically low	• If this error message reoccurs, call a service technician
501	Detergent empty	• Check canister, replace if necessary • Check suction lances fit correctly • Vent dosing system • If this error message reoccurs, call a service technician
502	Detergent dosing monitoring, go to action menu and execute ventilation	
503	Ventilation unsuccessful (detergent)	
520	Canister almost empty (detergent)	• Keep new canister available
521	Detergent dosing critical	• If this error message reoccurs, call a service technician
600	Electrode wiring of component A or B faulty	• Alarm message! • Message can be acknowledged • Appliance performs "Recovery" action • Device switches to the operating state MACHINE OFF • No intervention/remedy possible by the operating personnel
601	Timeout: Filling the mixing tank	
602	Timeout for dosing of component A or B	
603	Pump run time for Sporosan too high	
604	Uneven draining of the mixing tank	
605	Leaking water on the mixing tank	
606	Leak in the mixing tank or suction lifter	

No.	Display text	Explanation / actions
607	Leaks of dosing chambers	• If necessary, the door can only be opened by entering a code (service technician) • If this error message reoccurs, call a service technician
620	Temperature in the mixing tank too high	
621	Temperature in the mixing tank too low	
622	Short circuit on mixing tank temperature sensor	
623	Wire break on mixing tank temperature sensor	
630	Turbidity value outside the range	
631	LED Align measuring current outside the range	
641	Spore process not available	
642	Sporosan pump release not present	
650	Timeout of idle state	
651	Timeout of preparation step	
652	Timeout of normal spore step	
653	Timeout of intensive spore step	
654	Timeout of final rinse	
655	Timeout of validation	
656	Timeout of control outputs	
657	Timeout of recovery	
658	Timeout of door open	• Close the door
670	Please close door	
690	Canister A almost empty	• Check canister, replace if necessary • Check suction lances fit correctly • Vent dosing system • If this error message reoccurs, call a service technician
691	Canister B almost empty	
692	Canister A empty	
693	Canister B empty	
709	Close toilet seat	• Only possible to open the door after closing the toilet seat
710	Door not locked	

No.	Display text	Explanation / actions
711	Close lock – no feedback	• The door is not fully closed, e.g. because of projecting washware. • If this error message reoccurs, call a service technician
712	Door not unlocked	• No intervention/remedy possible by the operating personnel
713	Open lock – no feedback	
714	Door open and door locking closed?	• Cancel door lock in authorisation level 1 • If this error message reoccurs, call a service technician
720-734	Error messages concerning door malfunctions	• Alarm message! • Device switches to the operating state MACHINE OFF • No intervention/remedy possible by the operating personnel • If necessary, the door can only be opened by entering a code (service technician) • Call service technician!
800-989	Error messages concerning machine control system	

9 Modifying settings

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



2. Enter the service code of the required level.



3. Confirm the message.

Level 1 – User configuration level
Read/modify settings (service code 10001) The operator can carry out all functions required for normal operation and configure the settings in the i-menu.
Level 4 – Dosing system level
Read settings (service code 60166) The user can view all parameters relevant to dosing technology. The i-menu shows all parameters in the dosing system tab.
Level 5 – Hygiene level
Read settings (service code 50005) The user can view all parameters relevant to hygiene. The i-menu shows all parameters in the hygiene tab.

i-menu

	Symbol	Level	Description
Languages		1/4/5	Set display language
Operation		1/5	Set standard/one touch operation
Tank		1/4/5	View status
LPSG		1/4/5	View status
Chamber		1/4/5	View status
Door		1/4/5	Setting of touch/load detection, view status
Chemical products		1/4/5	View/set dosing parameters
Global		1	Set timers, code lock, fan runtime
Hygiene		5	View/set hygiene parameters
Operational times		1/4/5	View batches, operational times, etc.
Daily log		1/4/5	View archived operational times, events, etc.
Settings		1/4	Set date/time, display settings, module configuration
Dosing technology		4	View/set advanced dosing parameters
General information		1/4/5	Load/save parameters and languages, view software version, machine serial number, machine type

	Symbol	Level	Description
Telephone contact		4/5	Important telephone numbers (building services/service) to be determined by the operator

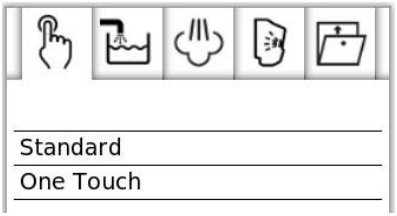
Action menu

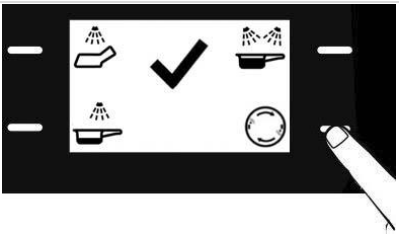
	Symbol	Level	Description
Ventilate detergent pipe		0/1/4	Starts detergent or rinse aid dosing unit to ventilate the transport pipes when required, e.g., when the canisters are empty during operation.
Ventilate rinse pipe		0/1/4	
Open door		1/4	For automatic door models, the door can be opened using this command. When the door is operated manually, the lock is opened.

9.1 Switching to one touch operation

For a faster workflow, the user interface can be switched to one touch operation. The cleaning programmes can be selected directly with the confirmation key in one touch operation and start immediately. The programme start key no longer needs to be pressed.

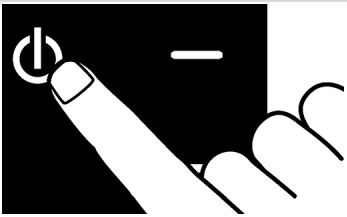
<table>
<tr>
<td>

1. Press and hold the Service access key for approximately three seconds.</td>
<td>2. Enter and confirm Service code 10001.</td>
</tr>
<tr>
<td>
3. Call up i-menu using the relevant confirmation key.</td>
<td>
4. Select the One touch operation submenu.</td>
</tr>
<tr>
<td>

5. Select One touch and confirm with the checkmark.</td>
<td>
From now on the user interface is permanently changed. When the device is disconnected from the power supply, it switches back to the standard view!</td>
</tr>
</table>

9.2 Ventilating the pipes

Venting of the detergent or rinse aid pipe must be performed if the dosing units have taken in air. This occurs if a canister is completely emptied during operation, or if one of the suction lances was not inserted as far as the bottom of the canister.

 1. Touch the **on/off key**.	 2. Call up the **Action menu** using the relevant confirmation key.
 3. Select the required submenu **Vent rinse pipe** or **Vent detergent pipe**.	4. Start the venting by using the relevant confirmation key (checkmark).

9.3 Setting up WLAN and Bluetooth connections

9.3.1 Enabling WLAN

WLAN can only be enabled if WLAN access has been granted at service level.

1. Switch to level 1.
2. Open the i-menu.
3. Switch to the **Settings** tab.
4. Select **Module configuration** and confirm.
5. Select and confirm **Enable WLAN**.
6. Select and confirm **Yes**.

WLAN is enabled, the WLAN tab is now visible in the i-menu.

9.3.2 Selecting a WLAN network (SSID)

To be able to see the WLAN tab, WLAN must be enabled, see above.

1. Switch to level 1.
2. Open the i-menu.
3. Switch to the **WLAN** tab.
4. Select and confirm **WLAN parameters**.
5. Select and confirm **SSID search**.

The available WLAN networks (SSID) are displayed.

6. Select and confirm the desired WLAN network.

The WLAN network has been selected. The password must be entered for a successful connection. MEIKO recommends that you do not use words or character strings that refer to persons, facilities or companies for the SSID and password.

9.3.3 Entering the password

The WLAN tab is open.

1. Select and confirm **WLAN parameters**.
2. Select and confirm **Password**.
3. Use the bottom right soft key to switch to **+/-** input in order to enter the WLAN network key.
4. Use the **+/-** soft keys to enter the individual digits of the network key. After approx. 2 s without input, the cursor jumps to the next position. Use the bottom right soft key to switch to the direction arrows to check individual digits and correct them if necessary. If you have entered too many or too few digits, you can switch to delete/insert mode using the bottom right soft key.
5. Check individual digits of the entire key before confirming.
6. Confirm the entry.

The WLAN network is configured. Press the **Back** soft key to return to the WLAN tab. If the network key was entered correctly, the successful connection is displayed here.

9.3.4 Enabling Bluetooth

1. Switch to level 1.
2. Open the i-menu.
3. Switch to the **Settings** tab.
4. Select **Module configuration** and confirm.
5. Select and confirm **Enable Bluetooth**.
6. Select and confirm **Yes**.

The Bluetooth interface is switched on. The appliance can now be located with its name and serial number via Bluetooth and can be paired with a smartphone, for example.

9.3.5 Setting up the WLAN connection with the MEIKOAssist Pro App

As an alternative to setting up the connection on the glass operating panel, the connection can be established to the WLAN much more conveniently using the 'MEIKO Assist Pro' app. The app is available in the Google Play Store or the Apple App Store.

Note

Setting up a WLAN connection using the ‘MEIKO Assist Pro’ app is currently only possible on Android mobile devices.

Bluetooth and WLAN must be switched on in the i-menu for the setup.

The ‘MEIKO Assist Pro’ app must be installed on your mobile device.

1. MEIKO Open Assist Pro.
2. In the **Machine Overview** view, tap **‘Connect machine**’.

↳ The ‘**Connect machine**’ view is displayed.

3. Tap **‘WLAN configuration’.**

↳ After a scan, the available machines are displayed in the view **‘Connect via Bluetooth’**.

4. Tap **‘Pair’** for the machine you want.

↳ After a scan, the available networks are displayed in the view **‘Connect to WLAN'**.

Note

When pairing for the first time, confirmation must be given on the glass operating panel.

5. Tap the WLAN network you want to connect to.

↳ A prompt for the **network password** appears.

6. Enter the password for the selected WLAN network and tap **‘Connect**’.

↳ A message appears stating that the appliance has been added.

7. Tap **OK**.

✓ The appliance is connected to the WLAN and is available in MEIKO Assist Pro.

9.3.6 Using DHCP

When DHCP is used, the appliance is automatically assigned the appropriate network parameters, such as the IP address, by the connected network. They are required to successfully connect to the network.

1. Switch to level 1.
2. Open the i-menu.
3. Go to the ‘Connection’ tab (LAN/WLAN).
4. Select and confirm '**WLAN parameters'**.
5. Select and confirm **‘Use DHCP’**.
6. Select and confirm **Yes**.

If the network parameters are to be set manually (statically), DHCP must be disabled at this point.

9.3.7 Connecting to the appliance via Bluetooth

The Bluetooth function must be enabled in the i-menu.

1. Search for Bluetooth devices on the end device.
2. Select the desired appliance and pair with it.
3. Complete the pairing process by entering the displayed pairing code 0000.

The appliance is paired with the end device.

9.4 Connecting your appliance to MEIKO Assist Pro

The appliance is connected to the same WLAN network as the end device or paired with the end device via Bluetooth.

1. Touch the MEIKO soft key for 2 s to enter the code.
2. Touch the MEIKO soft key again for 2 s to display the session key. This is located in the first line.
3. Enter the session key in the MEIKO Assist Pro app.

The appliance is connected to MEIKO Assist Pro. The appliance data can now be displayed.

9.5 Set date and time

1. Press and hold the **Service access key** for approximately three seconds.
2. Enter and confirm **Service code 10001**.
3. Open the **i-menu**.
4. Switch to the **Settings** tab.
5. Select and confirm **Display**.
6. Select and confirm the **Date/time**.
7. Select and confirm the **System time**.
8. Use the arrow keys to set and confirm the date/time.

9.6 Set time switch for automatic programme start

 1. Press and hold the **Service access key** for approximately three seconds.	2. Enter and confirm **Service code 10001**.
 3. Call up **i-menu** using the relevant confirmation key.	 4. Switch to the **Global** tab.
5. Select the **Parameters** item.	

Parameter	Value
Washer-disinfector time switch without programme	40 h (0–100 h)
Washer-disinfector time switch switch-on time	8 h (0–23 h)
Slop sink flushing time switch minmum time without programme	8 h (0–23 h)
Slop sink flushing time switch begin start release	8 h (0–23 h)
Slop sink flushing time switch end start release	18 h (0–23 h)

6. Using the listed parameters for the **Minimum time without programme**, define the time intervals for downtimes after which the device automatically does a programme run (wash chamber or slop sink flushing) for disinfection. The parameters for **Switch-on time and start release** are the start clock times and the time window for the scheduled programme start.

10 Maintenance and cleaning

⚠ WARNING – Danger to life from electric shock

Contact with live electrical parts on the appliance may result in serious injury or death.

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

⚠ CAUTION – Material damage due to water ingress

- Never clean the washer-disinfector, control cabinets and electronic components with water hose, high pressure cleaner or steam cleaner.

10.1 Maintenance

Note

In order to guarantee regular and correct maintenance, MEIKO recommends concluding a maintenance contract with MEIKO Service.

Regular maintenance is a prerequisite for the long-term reliable and safe operation of a washer-disinfector. Maintenance which is neglected or improperly carried out increases the residual risk of unforeseen damage to property and persons, for which no liability will then be assumed.

For Austria, maintenance is equivalent to the periodic safety inspection, according to ÖMPG and ÖMPBV.

Maintenance must be carried out:

- When the message No. 3 **Perform maintenance** is displayed.
- After every 5000 cleaning cycles (factory setting, can be adjusted if required).
- At lease once a year (see **Next maintenance** sticker on the washer-disinfector).

Maintenance includes the following:

- Electrical safety according to VDE 0701/0702 (test report optional in Germany)

- Dosing systems
- Cleaning nozzles
- Water tank/steam generator
- Holder
- Water inlet and outlet
- Screw connections and connections
- Recooling
- Door mechanism, locking and door seal

As part of the maintenance, the function check of the following points is carried out:

- Programme run as functional test
- Temperature measurement Protocol is optional.
- - Verification of the measuring systems

Please refer to the maintenance plan for a detailed list of the maintenance content. The maintenance plan is available for authorised and trained expert staff.

MEIKO supplies pressure-resistant, flexible connecting hose pipes with a manufacturer guarantee covering ten years worth of working hours.

10.1.1 "Next maintenance" sticker

The "Next maintenance" sticker shows when the next scheduled maintenance of the washer-disinfector is required.



The month in which the maintenance is required is at the top (in the 12 o'clock position). In the sticker shown, that is December 2006.

10.2 Process validation

The operator must ensure the adequate performance of the cleaning and disinfection procedures in the routine. In some countries this is also required by national laws, regulations or recommendations.

10.3 Routine check

Routine checks must be arranged by the operator on a daily basis before starting work.

The following points must be checked visually:

- The cleaning nozzles in the wash chamber (completeness and damage).
- The wash chambers (dirt).
- The light barriers of the load detection (contamination)
- The holder (damage and holding of the utensils).
- The canisters (fill level and suitable chemicals)
- Error and warning indicator in the display (inform accordingly in case of error)

In addition, check whether the wash arm still moves smoothly.

10.4 Daily cleaning

⚠ **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 appliance.

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

If the washer-disinfector is not used on a daily basis, start the programme once a day or let it run automatically with the time switch (see page 68).

- Clean the outside of the washer-disinfector, especially the door handle and glass operating panel, once a day. Only clean stainless steel with detergents suitable for stainless steel.
- Make sure that detergents do not attack the material, do not form coatings and do not discolour the material.
- Never clean the washer-disinfector with water hose, high pressure cleaner or steam cleaner.
- Only clean wash chamber seal with water or soap.

10.5 Descaling

⚠ CAUTION – Destruction of plastic parts and seals from residues of descaling agent

- Completely flush the descaling agent out of the wash chamber.

- Lime deposits (discolouration) in the wash chamber should be sprayed with a commercially available liquid descaler (e.g. based on 10 - 20% citric acid or phosphoric acid).
- Mechanical treatment with a brush or cloth is necessary. Do not use steel brushes. Observe the manufacturer's safety instructions and take suitable protective measures (protective gloves and safety eyeware, disposable apron if necessary).
- After a short application time (5 minutes), close the wash chamber door and immediately start a cleaning programme. This rinses the wash chamber.

11 Behaviour when the appliance is not in use

The washer-disinfector uses and processes water. Non-use for several days leads to the pipe system becoming contaminated.

To avoid contamination:

- Enable time switch programme see page 68.
- Programme the time switch programme to start a programme every day.
- Close the local shut-off valve of the fresh water supply if the appliance is temporarily not in use.
- If the pipe system is not to be used for a longer period of time, have it drained by an authorised technician or MEIKO service.

12 Decommissioning

To decommission the washer-disinfector, see the Service Manual.

13 Dismantling and disposal

In addition to valuable raw materials and recyclable materials, the packaging and the old appliance may also contain substances that are harmful to health and the environment and were required for the function and safety of the old appliance.

13.1 Disposal of packaging materials

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

- Square timber frame
- Plastic sheeting (PE film)
- Foam material
- Cardboard packaging (edge protection)
- Packaging strap (steel strip)
- Packaging strap (plastic (PP)
- If needed, transport safety bracket (stainless steel)

13.2 Disposal of the old appliance

- Old appliances may be contaminated by human excreta, other body fluids, pathogenic germs and other substances. For this reason, old appliances must be decontaminated before disposal.
- Old appliances must be rendered unusable after professional removal in order to prevent subsequent accidents.
- Residues of process chemicals must be disposed of in compliance with safety regulations. Use safety eyeware and protective gloves.



The appliance is marked with this symbol. Please observe the local regulations for proper disposal of your old appliance.

The components should be separated by material for recycling.

When disposing of the old appliance, the battery contained in the control system must be removed and disposed of separately.

Please do not dispose of the old appliance with residual waste.

For professional decontamination, dismantling and disposal of the old appliance, you can contact MEIKO Service.

14 Index

A

A0 value
- Factory setting 45
- Preselect....45

Action menu 58
Assembly 29
Authorisation level
- action menu 58
- i-menu....57
- User....57

Automatic door.... 43
Automatic door (AT).... 19

B

Bluetooth.... 20, 60, 61, 63

C

Cancel programme 40
Category of personnel, activities. 10
Clean care utensils 36
Cleaning.... 37
- descaling 67

Code entry 44
Commissioning 30
Compliance Statement CANADA 29
Compliance Statement USA 28
Connecting your appliance to MEIKO Assist Pro 63
Correct use 9

D

Daily cleaning.... 67
Declaration of conformity 7
Decommissioning.... 68
Delivery contents.... 5
Descaling.... 67
Designation of machine type.... 5
detergent dosing 19
DHCP 62
Dismantling and disposal 68
Disposal of packaging materials . 69
Disposal of the old appliance 69

E

Electrical characteristics.... 27
Enabling WLAN.... 60
Environment of use 9

F

Foot switch 43
Functional description 14

G

Glass control panel 31

H

Holder.... 21
- SUH 1.... 21
- SUH 2.... 21

I

i-menu 57
information on instructions for use 5
Intended purpose 9

L

LED indicator handle.... 20

Load detection 19

M

Maintenance 65
Maintenance and cleaning 65
Malfunctions 50
MEIKO Assist Pro App 20
Menu overview
action menu 58
i-menu 57
Messages 52
Misuse 10
Modifying settings 56

N

Next maintenance sticker 66
Non-usage 68
Notes on the operating instructions
illustrations 7

O

One touch operation 59
Operation/use 31
Options 19
Load detection 19
Overview illustration 17

P

Presentation conventions 6
Process validation 66
Product description 14

R

Related documents 5
Replace canister 45
Rim flushing 19
Routine check 66

S

Safety 9
Safety information 11
selecting the cleaning programme 41
Sensor 43
Set date and time 63
Slop sink flushing 19, 49
SUH 1 21
SUH 2 21

T

Technical data 24
Time switch 63
TopLine 10 Type M2 17
TopLine 20 Type M2 17
TopLine 30 Type M2 18

U

User group 9

V

Ventilating the pipes 59

W

What to do in the event of an emergency 13
WLAN 20, 60

MEIKO Maschinenbau GmbH & Co. KG
Englerstraße 3
77652 Offenburg
Germany
www.meiko-global.com
info@meiko-global.com

9020183 / Valid from: 2019-02 / Update: 2026-09