

CLEANING MACHINE FOR CAGE AND DRINKING BOTTLE WASHING



PROFI AMXXL-TKR

Installation and Operation Manual

(Original operating manual)

ΕN

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Product disclaimer

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Notes on the documentation

1 Notes on the documentation

1.1 Application

This document contains the most important information for the installation and commissioning of the machine by qualified personnel, as well as the information required for day-to-day operation by the operator.

- ► Keep the operating instructions and all referenced documents in a safe and accessible place.
- ► If you sell the machine, pass on the installation and operating instructions.

1.2 Layout of the documentation

Referenced documents are all instructions that describe the installation, operation, maintenance and repair of the device, as well as additional instructions for all accessories used.

For the operator:

- Comic Card (brief instructions)
- Operation instructions

For the specialised tradesman:

- Installation Instructions
- Service Manual
- Service Software Manual
- Troubleshooting list
- Wiring Diagram
- Spare parts catalogue

1.3 Representation conventions

1.3.1 Symbols used

Icon	Meaning	
4	Beware of hazardous electrical voltage	
EX	Beware of explosion	

Notes on the documentation

Icon	Meaning
	Beware of crushing
A	Beware of hazardous substances
	Beware of hand injuries
A	Beware of slipping
<u>^</u>	Beware of hazard area
i	Useful additional information and tips

1.3.2 Representation in the text

Representa- tion	Meaning
NOTE	Important note for the operation of the machine, not a warning notice
>	Step
└ →	Outcome/result
_	Listing 1st level
•	Listing 2st level

Safety instructions and regulations

2 Safety instructions and regulations

2.1 Safety instructions and warning notices

▶ During machine operation, observe the general safety instructions and warning notices that precede each action.

2.1.1 Hazard levels

The hazard level is part of the safety instructions and is denoted by the signal word. Potential consequences are differentiated by the choice of signal word.

▲ GEFAHR	Imminent danger: results in serious physical injury or death
A WARNUNG	potentially hazardous situation: can cause serious physical injury or death
▲ VORSICHT	potentially hazardous situation: can cause minor physical injury
ACHTUNG	potentially harmful situation: can cause damage to the product or other objects

2.1.2 Layout of warning notices

Warning notices are depicted with warning symbols and signal words in the corresponding safety colours.





Nature and source of the hazard

Explanation on the nature and source of the hazard

- ► Measures for averting the hazard
- ► Additional measures for averting the hazard, where applicable

2.2 Basic safety instructions

2.2.1 Product safety

The machine conforms to state-of-the-art technology and the recognised safety regulations. Nonetheless, hazards may occur.

Operate the machine only if it is in perfect working order and in compliance with the operating instructions.

Safety instructions and regulations

All modifications and alterations to the product are reserved for persons authorised by HOBART. Parameterisation is password-protected.

2.2.2 Personnel qualification

- ▶ Observe the regulations on occupational health and safety.
- ► Carefully read through the operation manual before use.

Activity	User group	Qualification/training
Installation	Qualified personnel	Authorised electrician (qualified electrician or persons who have undergone equivalent training)
	Trainees	Only under appropriate supervision and inspection
Commissioning	Qualified personnel	Authorised electrician (qualified electrician or persons who have undergone equivalent training)
	Trainees	Only under appropriate supervision and inspection
Work on the electrical system	Qualified personnel	Qualified electrician
Operation	Laymen	Training by the operator using the operation manual, hazard briefing
	Disabled persons	Training by the operator using the operation manual, hazard briefing
	Children from 14 years old	Training by the operator using the operation manual, hazard briefing, only under supervision
	Children from 13 years old	not permitted
Maintenance, repair	Qualified personnel	Hobart Service, or by Hobart-trained service technicians
	Trainees	Only under appropriate supervision and inspection

2.2.3 Product-specific hazards

Avoid body parts being crushed or knocked:

► Observe the instructions on the packaging for storage, lifting or transporting.

Avoid risk of explosion:

▶ Do not install machine in a potentially explosive location.

Avoid electric shock:

- ▶ Do not allow water to flow over live components.
 - Make sure the machine is correctly stored (see frost damage section 1.3).
 - Make sure the machine does not overflow when being filled.
- ▶ Do not damage the connection cable while unpacking.
- ► Have the machine connected to the power supply only by qualified personnel.

Safety instructions and regulations

► Have additional feed tanks mounted by qualified personnel.

Avoid fire risk:

- ▶ Do not allow water to flow over live components.
 - Make sure the machine is correctly stored (see frost damage section 1.3).
 - Make sure the machine does not overflow when being filled.
- ► Have the machine connected to the power supply by qualified personnel.
- ► Have all modifications to the machine carried out by qualified personnel.

Avoid chemical burns, sensitisation of the skin, poisoning:

- ► Wear protective equipment (gloves, safety goggles, protective clothing) when handling chemicals.
- ▶ Use only suitable chemicals. Observe the manufacturer's data.
- ► Have chemical sensor system set by authorised trained service technicians.
- ▶ Do not open the machine during operation, wait for the program to finish.
- ▶ Disconnect the machine from the mains prior to cleaning.
- ► For cleaning, wear protective equipment (gloves, safety goggles, protective clothing) when touching parts contaminated by wash water.

Avoid burns, scalds (to the hands):

- ▶ Do not open the machine during operation or the evaporation phase, wait for the programme to finish.
- ▶ Disconnect the machine from the mains prior to cleaning.
- ► For cleaning, wear protective equipment (gloves, safety goggles, protective clothing) when touching parts contaminated by wash water.

Avoid slipping:

- ✓ Moisture can build up on the machine floor.
- ► Provide a floor covering that is guaranteed to be non-slip in case of moisture.

Residues on the washware, hygiene regulations not maintained.

► Hygiene regulations must be observed and/or demonstrated in accordance with the national provisions.

2.2.4 Additional hazards

Potential hazards caused by operating resources to be used can be found in the enclosed safety datasheets. Workplaces must be marked accordingly.

Safety instructions and regulations

2.3 Property damage

Avoid frost damage:

- √ Temperatures below 0°C during transport/storage cause function impairments.
- ▶ Prior to installation, store the machine at room temperature (min. 15°C) for 24h.

Avoid water damage:

- ► Configuration is password-protected and permitted only by certified service technicians. Observe documentation.
- ▶ Do not operate the machine unsupervised.
- ► Close on-site shut-off valves at the end of operation.

Avoid environmental hazards:

▶ Dispose of the machine correctly and in accordance with environmental regulations (see section 11)

Product description

3 Product description

3.1 Intended purpose

The machine is intended to be used for cleaning cages or drinking bottles.

3.2 Conformity

See separate EC Conformity Declaration.

3.3 Designation

The rating plate is located at the front of the machine and contains the following information: model, serial number, date of manufacture, country of manufacture, voltage, connection rating, design-state number and CE mark.

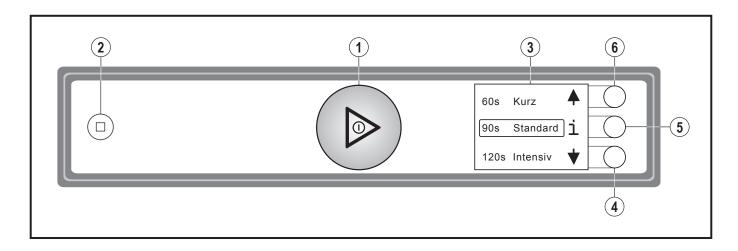
3.4 Technical specifications

	AMX	AMXX	AMXXL	AMXT
Height (mm)	1,510	1,510	1,610	1,510
Width (mm)	635	635	735	1,265
Depth (mm)	635	635	635	635
Water consumption per basket	2 to 3.5 l, depe	nding on conta	mination	
Flow pressure	0.5 – 10 bar			
	min. 0.8 bar wit	h integrated so	oftener	
Cold or hot water connection	max. 60°C	max. 60°C		
Voltage	see rating plate	see rating plate		
Total connected load				
Fuse protection				
Tank capacity (I)	23	40	40	40
Loading height	440	440	540	440
Noise emission dB (A) (workplace-related emission value)	66	67	68	68
Weight (kg)	101	116	145	180

Controls

4 Controls

4.1 Controls



①	ON/OFF button	Pressing this button switches the machine on.
		As soon as the machine is ready for operation, the rinse program can be started by closing the hood.
		Pushing and holding (3 seconds) the button activates the automatic drain and self-cleaning cycle and switches off the machine automatically. After switch off, however, the machine is not voltage free!
		The button also shows the current operating state through different colours (see sections 1.2 and 1.3)
2	STOP button	In case of operating error or faults, the machine can be switched off immediately without prior pump out by pressing this key.
		After switch off, however, the machine is not voltage free!
3	Display	Selection menus/fault and information displays
4	Display navigation button	Scroll/set/select
(5)	Display navigation button	Change menu level/confirm/back/acknowledge fault
6	Display navigation button	Scroll/set/select

4.2 Operating states

In the operating panel display, the ON/OFF button indicates the current operating state through different colours.



Machine is off

The ON/OFF button is colourless.



Machine being prepared for operation

The ON/OFF button gradually goes green. The wash tank is being filled and the machine is heating up.



Machine ready

- The ON/OFF button illuminates completely green.
- The machine is ready for the next rinse cycle.



Rinse program starts

The ON/OFF button illuminates completely blue.



Machine is washing

 The ON/OFF button changes segment-by-segment from blue back to completely green.



VAPOSTOP (vaporisation phase)

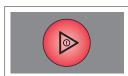
 The ON/OFF button display a permanently revolving blue segment.



Switch off machine

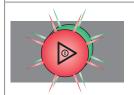
- The ON/OFF button changes segment-by-segment from green to colourless.
- The machine is being drained and switched off.

4.3 Display of faults and messages



Fault: Operation not possible

- The ON/OFF button illuminates permanently red.
- The fault is displayed.
- For potential faults, see section 1.1



Information: limited operation is possible

- The ON/OFF button illuminates green/red alternately.
- The message is displayed.
- 1.1For potential messages, see section

Controls

4.4 Display function

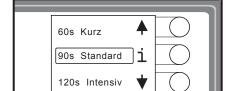
The display is activated (when the machine is turned on) by pushing the display navigation buttons or moving your hand near the display.

On activation, the wash programme selection appears first. The selected programme or function is highlighted by a frame.

The function of the display navigation buttons is context-dependent and shown in the display by symbols.

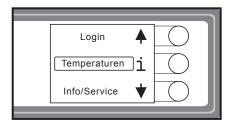
With button ⑤ it is possible to select further displays/menu levels. If no button is pushed, the display de-activates again after 10s.

4.5 Overview of main menus



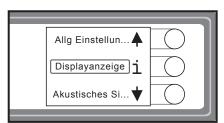
Programme selection and info:

- Selection of possible wash programmes (different depending on the model version)
- Button (s) ("i") accesses the Login/Temperatures/Info menu



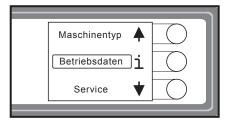
Login/Temperatures/Info:

- Login: Operator code accesses Operator menu
- Temperatures: Displays tank and rinse temperatures.
- Info/service: Accesses the Info/Service menu



Operator menu:

- General settings: Accesses the machine settings
- Display indications: Accesses display settings
- Acoustic signal: Accesses the signal sensor setting
- ... see also section 1.1.



Info/Service:

- Machine type: Indicates machine type and serial number.
- Operating data: Displays operating data (see section 1.12).
- Service: Displays service address.

Controls

4.6 Overview of display symbols

4.6.1 Wash programme symbols

As an alternative to the text display, it is possible to switch to the symbol display (see section 1.6).

Icon	Programme
<i>a</i> -	Short
a-a-	Standard
<i>a-a-a-</i>	Intensive
<i>a-a-a-a-</i>	Duration
6	Hygiene

4.6.2 Function symbols

Icon	Function
↑ ↓	Scroll menu
J	Accept value
+ -	Change value
i	Info/service
 0	Login
5	Back
	Temperatures
\blacktriangle X	Wash/rinse temperatures
	Sound on / sound off
5	Timer
	Salt deficiency
<u> </u>	Chemical deficiency
Δ	Error
×	Filling fault

Controls

Icon	Function
深	Processing fault
*	Heating element fault

5 Installation

5.1 Personnel qualification

Installation is reserved for qualified personnel (see section 1.2.2).

5.2 Special safety instructions



✓! WARNING

Risk of electric shock, fire hazard

Water (frost damage, machine overflow) flowing over live components can cause injury from electric shock or fire.

- ▶ Do not allow water to flow over live components.
- ▶ Make sure the machine is correctly stored (see frost damage section 1.3).
- Make sure the machine does not overflow when being filled.



/! CAUTION

Risk of being crushed or knocked

When being lifted or transported, the machine can overturn or fall and cause injury.

► Observe the instructions on the packaging for storage, lifting or transporting.



! WARNING

Risk of explosion

Installing the machine in a potentially explosive location can cause explosion and serious injury from ejected parts.

▶ Do not install machine in a potentially explosive location.

CAUTION

Frost damage

Temperatures below 0°C during transport/storage cause function impairments.

Prior to installation, store the machine at room temperature (min. 15°C) for 24h.

Installation



5.3 Transporting to the installation location

- ▶ If possible transport the machine in its packaging and on the pallet.
- ▶ Use suitable transport means (elevating truck, crane etc.).
- ▶ If using a forklift, shim the machine with wooden trusses.

5.4 Removing the packaging



CAUTION

Risk of electric shock, fire hazard

When the machine is unpacked, the connection cable can become damaged and cause injury from electric shock or fire.

- ▶ Do not damage the connection cable while unpacking the machine.
- ► Take cable measurement BGV A3.
- ▶ Remove packing materials and accessories from the machine.
- ▶ Inspect the machine for possible transport damage.

5.5 Installing the machine



WARNING

Risk of electric shock, fire hazard

Water ingress can cause short circuit and mortal danger from electric shock and fire.

- ► As a protection against penetrating water, the rear side of the machine must be sealed.
- ▶ If this cannot be guaranteed, a back covering must be also ordered.
- ➤ Seal the machine against the wall, or attach the optionallyavailable back covering.
- ➤ Cut-outs in the rear machine frame for supply lines etc., must also be sealed (sealing kit 01-539610-001 optionally available).
- ► Align machine horizontally with a spirit level by turning the adjusting feet.

Installing the machine in the corner:

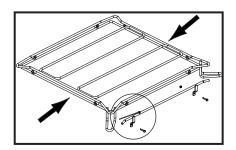
► Maintain a side wall clearance of 107 mm.

Installing the machine in a room:

► Attach the optionally-available back covering.

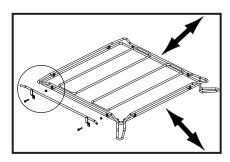
Converting to corner operation

Installation



Modify the basket guide rail in accordance with the passthrough direction (see arrows):

▶ Remove the front side guides by loosening the screws.



▶ Re-mount the side guide in accordance with the pass-through direction.

5.6 Connecting to the power supply



WARNING

Risk of electric shock

Failure to connect properly to the power supply can cause mortal danger from electric shock.

Have the machine connected to the power supply only by qualified personnel.

NOTE: To guarantee the electrical safety of the machine, it must be connected to a protective earthing equipment conductor installed as specified. In addition, the machine must be connected on site to the equipotential bonding connection. The terminal screw () provided for this purpose is located next to the cable bushing.

These fundamental safety requirements and the professional design of the on-site installation must be verified by a qualified electrician.

Hobart does not accept any liability for damage caused by improper installation! Any applicable local installation instructions must be observed!

The mains cable must be connected via a cut-out device (main switch or accessible plug device).

Modification to an alternative power supply is possible as per the variants on the circuit diagram. Connection diagrams are located adjacent to the connection terminals.

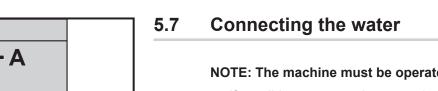
Only for machines with three-phase current wash pumps

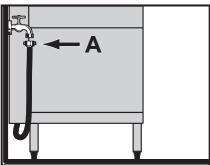
To verify the correct three-phase current connection, the rotating direction of the wash pump(s) must be checked as follows:

Installation



- ▶ Push a cable tie approx. 3 cm through the rear side air grille.
- ► Check whether the fan impeller rotates counter-clockwise (in the direction of the arrow).





NOTE: The machine must be operated with potable water.

▶ If not, interchange two of the three phases on the feed cable.

- ▶ If possible, connect to hot water (max. 60°C).
- ▶ Machines with drain heat recovery: If possible connect to cold water (approx. 10 °C).

Water hardness:

- Machines without softener: max. 1 °d = 0.18 mmol/l.
- Machines with softener: max. 30 °d = 5.3 mmol/l.

Flow pressure:

- Machines without softener: 0.5 10 bar
- Machines with softener: 0.8 10 bar
- If the flow pressure is above 10 bar: provide pressure reducing valve.
- ► Connect the union nut "A" (3/4" thread) of the water supply hose to the site shut off valve.
- ▶ Do not kink or cut the water supply hose.
- ▶ Any required extension must be executed using a suitable pressure hose, e.g. 324088-1.

5.8 Connecting the steam (optional)



CAUTION

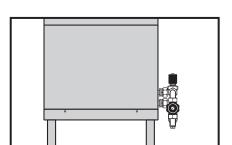
Burns, scalds

During connection, hot pipelines and fittings can cause burns. Steam can escape and cause scalding.

- Before connecting, lock-off the site steam supply and secure to prevent "restart".
- Wear protective gloves.

NOTE: On site, make sure that the permissible pressures and temperatures cannot be exceeded.

Installation





All fittings required for operation are built into the machine.

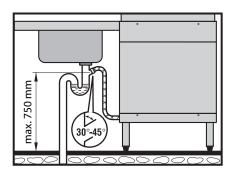
► Connect to the site steam line.

- DN 20 pipe

Flow pressure: 0.5 - 3.5 barTemperature: max. 150°C

See rating plate!

▶ Dimension steam and condensate line accordingly.



5.9 Connecting the drain

The connection between machine and site drain must not exceed a max. height of 0.75 m.

▶ Do not kink or lay the drain hose loose on the ground.

Installation

5.10 Connecting the dosing units (optional)

Optional built-in dosing system

Depending on the on-site situation, a central dosing station is connected.

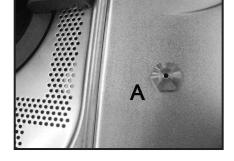
As a rule, all model variants are already factory-equipped with integrated dosing units. To convert to different dosing units, make the connection as follows.

- Drain tank.
- ► Turn off the site main switch or remove the plug.
- ► Remove frontal covering.



Connecting the liquid dispenser:

- ► A metering nipple is available on top of the boiler for dispensing rinse aid.
- ► For detergent dosing, connect the hose (PVC / Ø 6 mm outside × Ø 4 mm inside) between the pressure side of the dosing unit and the metering nipple (A) on the wash tank, secure with hose clamp.



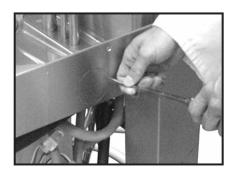


► Install dispenser or mount externally.

To connect a powder or solid detergent dispenser:

▶ Remove the side cover (depending on left or right connection).

Installation



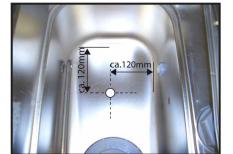
▶ Break out sheet perforation on the sheet outer jacket.



▶ Drill out the inner tank wall behind according to the required connection diameter.



- Screw the dosing connection tightly to the tank wall.
- Connect the plug of the cable harness to the dispenser (max. 100 VA).



Installing the connectivity probe:

- Conductivity probe should preferably be installed at the flat part of the tank bottom.
- ▶ Drill out the tank according to the probe diameter.

- ► Replace cover(s).
- ► Turn on site main switch or insert the plug.
- ▶ Set the dispenser and the sensor system.

Commissioning

6 Commissioning

6.1 Personnel qualification

Commissioning is reserved for qualified personnel (see section 1.2.2).

6.2 Special safety instructions

NOTE: Before commissioning the machine, the relevant electrical safety checks must be performed according to the locally applicable regulations!

6.3 Starting the commissioning procedure

When the machine is turned on for the first time, the commissioning procedure starts automatically with the language selection, followed by further requisite commissioning steps.

- ► Push ON/OFF button.
 - → Display is activated.
 - → The *Language* menu is displayed.

6.4 Set the language

- ▶ Push the display navigation button ④ or ⑤ until the required language is framed.
- ▶ Push button ⑤.
 - → The language is activated.

6.5 Setting the date

- ▶ Push the display navigation button ④ or ⑥ until the required day appears.
- ► Confirm with button ⑤ and skip to set month.
- ▶ Repeat the procedure as described to enter month and year.
- ▶ Push button ⑤.
 - → The date is activated.
 - → **Set time** menu is displayed.

Commissioning

6.6 Set the time

- ▶ Push the display navigation button ④ or ⑤ until the required hour appears.
- ► Confirm with button ⑤ and skip to set minutes.
- ▶ Push the display navigation button ④ or ⑤ until the required minute appears.
- ► Push button ⑤.

6.7 Setting the water hardness (optional)

Machines with integrated softener have a water hardness setting.

NOTE: The softener must be set to the existing water hardness (ask at the local water works).

- ▶ Push the display navigation button ④ or ⑥ until the required hardness is set.
- ▶ Push button ⑤.
 - → Water hardness is activated.

6.8 Filling the salt reservoir (optional)

On machines with integrated softener, an instruction to fill the salt reservoir appears during commissioning.

CAUTION

Property damage

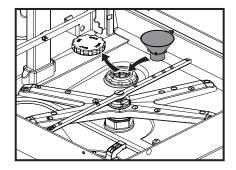
Accidentally filling the salt reservoir with detergent will damage the water softener.

▶ Do not fill the salt reservoir with detergent.



Unlike the regular salt fill, additional water has to be added during the commissioning procedure.

- Open hood.
- ► Unscrew the salt reservoir lid and use the funnel provided to add 1.5 kg of granular (2-8 mm) regenerating salt (do not use salt tablets).



Commissioning

- ▶ Fill up the reservoir with potable water (only at commissioning).
- ▶ Make sure the lid seal is free of dirt and salt.
- Screw lid back on and tighten.

CAUTION

Property damage

Salt residues on the tank floor cause corrosion damage.

- Remove salt residues by hand.
- ➤ On completion of the commissioning procedure, start a wash cycle to remove all traces of salt if necessary.
- ▶ To continue the commissioning procedure, push button ⑤.

6.9 Filling chemical hoses



We recommend the use of HOBART Hyline detergent and rinse aid.



CAUTION

Chemical burns, sensitisation of the skin, poisoning

The use of unsuitable chemicals can cause injury.

- Use only commercial detergent and rinse aid.
- ▶ Observe the manufacturer's application and safety instructions.



WARNING

Chemical burns, sensitisation of the skin, poisoning

Filling the chemical container or chemical hoses with detergent or rinse aid for the first time incorrectly can cause serious injury.

► Wear protective equipment (gloves, safety goggles, protective clothing) when handling chemicals.

6.9.1 Provisioning external chemical canisters

During the commissioning procedure, an instruction for inserting the suction hoses into the external canisters appears in the display.

Preparing the detergent:

- ✓ Suction height of dosing pump: max. 1.5 m.
- ▶ Place suction hose **without** colour marking at the suction valve down to the bottom of the external reservoir.

Preparing the rinse aid:

- ✓ Suction height of dosing pump: max. 1.5 m.
- ▶ Place suction hose with blue marking at the suction valve down to the bottom of the external reservoir.



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Commissioning

Filling the suction hoses:

- ▶ Push button ⑤.
 - → The instruction "Close machine hood" is displayed.
- ► Close the hood and push button ⑤.

The filling process is visualised in the display by a time bar.

6.10 Completing the commissioning procedure

The machine can be started or alternatively switched off.

- ▶ Push the display navigation button ④ or ⑤ until the required setting is framed.
- ▶ Push button ⑤.
 - → The setting is activated.

6.11 Starting up the chemical deficiency sensor system (optional)

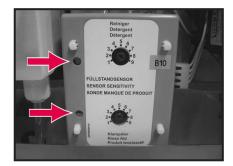




Chemical burns, sensitisation of the skin, poisoning

Incorrect procedure when commissioning the chemical sensor system can cause serious injury.

- Have chemical sensor system set by authorised service technicians.
- ▶ Before removing the trim components, disconnect the machine from the power supply.
- ► Execute hose filling via the operator menu (see section 1.8).
- Observe until the sensor-operated filling of both hoses is complete.
 - ☐ The control LEDs must now illuminate.



- If necessary, readjust the potentiometers (increase setting).
 - Factory setting for detergent = 3
 - Factory setting for rinse aid = 5
- Switch on sensor system in the service menu. Contact your HOBART Service Partner.

Operation

7 Operation

7.1 Personnel qualification

The machine must be operated by instructed personnel (see section 1.2.2).

7.2 Special safety instructions



! CAUTION

Chemical burns, sensitisation of the skin, poisoning

If the hood is opened during operation, detergent can spurt out and cause injury.

Do not open the hood during operation, wait for the programme to finish.



WARNING

Danger of slipping

Moisture can build up on the machine floor and cause slipping.

Provide a floor covering that is guaranteed to be non-slip in case of moisture.

7.3 Notes for optimum wash results

The rinse result is significantly affected by the water quality. If the mineral content is high, the minerals dissolved in the water become visible on the wash ware in the form of spots and streaks during the drying process.



Qualified HOBART service personnel can determine the mineral content of the water by measuring the electrical conductivity. Values of less than 80 $\mu\text{S/cm}$ are non-critical. If the values are higher, we recommend the use of a HOBART HYDROLINE demineralization cartridge or a reverse osmosis unit.

If you have any questions, please contact your authorised HO-BART service partner.



You can achieve a higher washing efficiency through the use of special rack frames and devices.

Operation

Different detergents give rise to different smells, which should be avoided.

We recommend manual basic cleaning by means of a brush and water hose. Alternatively, the programme described in section 1.11 can also be used.

7.4 Preparations for washing

7.4.1 Preparing the machine

- ▶ Check correct position of wash/rinse arms and strainers.
- ▶ Open site shut-off valve.
- ► Turn on main switch or insert the plug.
- ► Check level of detergent and rinse aid container.
- ► Close hood.
- ▶ Push the ON/OFF button ①.
 - → Machine is switched on.
 - → The tank is filled.

The ON/OFF button will become gradually green during the filling and heating cycle. This process can take several minutes.

When the button becomes completely green, the machine is ready for operation.

7.4.2 Preparing the wash ware

- ► Remove any food residue.
- ▶ Place wash ware face down in the rack.

► Rinse off wash ware.

Operation

7.4.3 Displaying and selecting the programme

7.4.4 Overview of programmes and additional functions

Name	Description	Alternative symbol display
Short	For slight dirt deposits	<i>m</i> -
Standard	For normal dirt deposits	a-a-
Intensive	For heavier dirt deposits	a-a-a-
Duration	For heavy dirt deposits	a-a-a-a-
Hygiene	(see section 1.10)	5
Basic cleaning	Programme for removing stubborn coatings/ deposits on wash ware (see section 1.11)	without

7.4.5 Displaying and selecting the programme

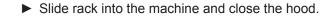
The machine washes automatically using the standard programme. If necessary, a different program can be selected.

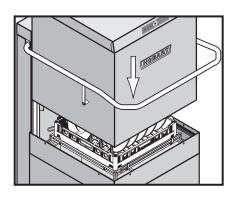
- ➤ To display the current program before the start, activate the infrared sensor in the display by hand or push the display navigation button.
 - → Display is activated.
 - → **Programme selection and info** menu is displayed.
 - → The program currently selected is highlighted.
- ► To switch to a different programme, push navigation button ④ or ⑤ until the required programme appears and is highlighted.

The selected program can be started directly by closing the hood.

The machine continues with the last programme to be selected until it is switched off.

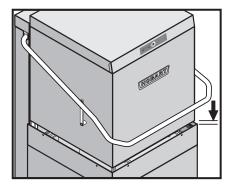
7.5 Washing





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Operation



- While the programme is running, the ON/OFF button gradually changes from blue back to green.
- → As soon as the ON/OFF button illuminates green again, the rinse cycle is finished.
- ▶ Open the hood and remove the rack.
- ▶ Until the next wash process, place the hood in the stand-by position (engaged position just before closing), to prevent cooling down.

Machines with VAPOSTOP

For models with VAPOSTOP, a vaporisation phase (30 sec.) is also carried out after washing. This is indicated by a blue segment rotating to green and by the remaining run time in seconds on the display. If necessary, this phase can be interrupted at any time by opening the hood.

7.5.1 Ending the continuous programme

A running continuous programme can be ended prematurely as follows.

- ▶ Push the ON/OFF button ①.
 - → The rinse cycle starts after a short pause.
 - → The continuous programme is ended.

The programme also ends automatically after 20 minutes.

Operation

7.6 Switching off the machine

- ▶ Close hood.
- ▶ Push the ON/OFF button ① for three seconds.
 - → During pump-out, the ON/OFF button gradually changes from green back to colourless.



During pump out, the machine interior is cleaned automatically. Then remove any coarse food residues.

- ✓ When the ON/OFF button has extinguished completely:
- ➤ Turn off main switch or remove the plug.
- Close on-site shut-off valve.

7.7 Executing daily cleaning

CAUTION

Property damage

The use of unsuitable agents can cause corrosion damage.

- ▶ Do not use any chloric, acidic or metal-containing additives to clean the machine.
- Do not use metal brushes.
- ▶ Open hood.
- ► Remove sieves and clean. Make sure that food debris does not enter pump intake!
- ► Flush the fine strainer under running water.
- Clean machine areas that cannot be reached by the water circulation of the self cleaner (hood labyrinth, rear side riser pipe, etc.).
- ► Replace strainer.
- ▶ Leave the hood open for ventilation.

7.8 Executing weekly cleaning

- ▶ Push and hold the clip fastener on the wash and rinse arms. Remove the wash and rinse arms and clean.
- ► Replacing the wash and rinse arms.

7.9 Executing hygiene cleaning

When a pre-set number of wash cycles has been reached, the instruction "Execute hygiene programme" appears in the display, indicating that an automatic hygiene clean of the machine interior should be executed.

- ▶ Before end of operation, remove the rack and place two HO-BART hygiene tabs in the machine interior.
- Close hood.
- ▶ Push navigation button ④ or ⑥ until the hygiene programme appears and is framed.
- ▶ Push the ON/OFF button ①.

While the hygiene programme is running (duration approx. 20 minutes), the green illuminated segments extinguish successively.

At the end of the programme, the machine switches off automatically.



If necessary, hygiene clean should be executed before the pre-set number of wash cycles is reached. With regular use, the machine interior will remain free of soil and dirt deposits.

7.10 Executing the basic cleaning programme for wash ware

Programme for removing stubborn coatings/deposits on wash ware.



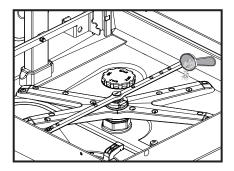


CAUTION

Chemical burns, sensitisation of the skin, poisoning

The use of unsuitable chemicals can cause injury.

- ► Carry out the manual addition of a special agent according to the recommendation of your chemical supplier.
- ▶ Observe the manufacturer's application and safety instructions.
- Open hood.
- ► Manually remove coarse soil from tank cover.
- ▶ According to the individual dosing recommendations, add the powder quantity required for the tank content (see 1.4) to the flat side of the tank.



Operation

- Activate the infrared sensor in the display by hand or push the display navigation button.
 - → Display is activated.
 - → **Programme selection and info** menu is displayed.
- ► Push navigation button ④ or ⑥ until the basic cleaning programme appears and is framed.
- ▶ Slide the loaded rack into the machine and close the hood.
- ▶ Push the ON/OFF button ①.
 - → While the programme is running (duration approx. 10 minutes), the ON/OFF button ① gradually changes from blue back to green.

As soon as the ON/OFF button illuminates green again, the rinse cycle is finished.



For each basic cleaning cycle that follows immediately, an additional manual dosing corresponding to 4 litres of water is necessary.

7.11 Displaying the temperatures

This menu option is for displaying the current tank and rinsing temperatures.

Procedure:

- Activate the infrared sensor in the display by hand or push one of the display navigation buttons.
 - → Display is activated.
 - → *Programme selection and info* menu is displayed.
- ▶ Push button ⑤.
- ▶ Select the *Temperatures* menu option.
 - → Current tank and rinsing temperatures are displayed.

Setting options, operating and hygiene data

8 Setting options, operating and hygiene data

The machine can be operated as soon as the commissioning procedure is complete.

If needed, the following settings can be individually adapted via the operator menu.

8.1 Overview of operator menu

Submenu	Function	
General settings	Language	
	Date	
	Time	
	Date format	
	Time format	
	Temperature unit	
Display indications	Programme representation	
	Brightness	
	Adjust contrast	
Acoustic signal	On/Off	
Chemical settings	Detergent dosing	
	Rinse aid dosing	
	Filling chemical hoses	
External water treatment (only	Set counter	
when activated by HOBART Service)	Reset counter	
Colvido	Remaining water quantity	
Degree of hardness	Setting	
VAPOSTOP	Activating	
	Deactivating	
Operating/hygiene data	Display operating data	
	Display hygiene data	
	Transmit report	
Timer	Weekly timer programmes	
	Daily timer programmes	
	Activate/deactivate	

Setting options, operating and hygiene data

8.2 Opening the operator menu

- ✓ The machine must be switched on.
- Activate the infrared sensor in the display by hand or push one of the display navigation buttons.
 - → Display is activated.
 - → *Programme selection and info* menu is displayed.
- ▶ Push button ⑤.
 - → Login/Temperatures/Info menu is displayed.
- ▶ Push the display navigation button ⑤ until *Login* is framed.
- ▶ Push button ⑤.
 - → The display shows "Enter PIN".

Enter operator code "1111":

- ▶ Push the navigation button ④ or ⑥ until a "1" appears in the first position.
- ▶ Push button ⑤ and skip to the next number.
- Repeat the procedure as described until all numbers are entered.

Once the correct code has been entered, the operator menu is displayed.

8.3 Navigating, selecting and setting within the menu

Navigating and opening submenu:

- ▶ Push the navigation button ④ or ⑤ until the required submenu appears and is framed.
- ► Push button ⑤.
 - → Menu is displayed.

Making and activating settings:

- ▶ Push the navigation button ④ or ⑥ until the required setting appears and is framed.
- ▶ Push button ⑤.
 - → The setting is activated.

Back:

- ▶ Push the navigation button ④ or ⑥ until the menu option **Back** appears and is framed.
- ► Push button ⑤.
 - → The next highest menu level is displayed.

Setting options, operating and hygiene data

8.4 Exiting the operator menu

➤ Open the hood and close it again, or do not press any button for 10 seconds!

8.5 Making the general settings

The following settings can be entered into the *General settings* submenu.

Setting	Selection
Language	Set as default during commissioning
Date	(see section 1.4 to section 1.6)
Time	
Date format	YYYY.MM.DD
	DD.MM.YYYY
	MM.DD.YYYY
Time format	24h/12h
Temperature unit	°C / °F

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the *General settings* submenu and make the setting, see section 1.3.

8.6 Setting the display indications

The following settings can be entered into the *Display indications* submenu.

Setting	Selection	
Programme representation	Text display	
	Symbol display (see section 1.6.1)	
Display brightness	Set brightness	
Display contrast	Set contrast	

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the *Display indications* submenu and make the setting, see section 1.3.

Setting options, operating and hygiene data

8.7 Setting the acoustic signal

An acoustic signal can be switched on or off in the *Acoustic signal* submenu.

Setting	Selection
Set the signal sensor	Sound on / sound off

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the Acoustic signal submenu and make the setting, see section 1.3.

8.8 Making the chemical settings (optional)

The following settings can be entered into the *Chemical settings* submenu.

Setting	Selection
Detergent dosing	Factory setting: 2.5 g/l
	Possible range: 0–9.5 g
Rinse aid dosing	Factory setting: 0.3 g/l
	Possible range: 0–2.0 g/l
Filling chemical hoses	Fill detergent dosing hose NO/YES
	Fill rinse aid suction hose NO/YES

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the *Chemical settings* submenu and make the setting, see section 1.3.

If in the *Fill chemical hoses* submenu, the prompt *Fill detergent* suction hose and/or *Fill rinse aid suction hose* are set to *Yes*, the filling process will start.

The filling process is visualised in the display by a time bar.

It can be stopped by pushing button ② if necessary.

Setting options, operating and hygiene data

8.9 Configuring the counter for external water treatment (optional)

The following settings for an optional external water treatment can be entered into the *External water treatment* submenu.

Setting	Selection
Set counter	Set counter
	Factory setting: not activated
Reset counter	Reset counter NO
	Reset counter YES
Remaining water quantity	Remaining capacity external water treatment
	Displays the current demineralisation counter status (remaining water quantity until the demineralization cartridge is depleted).

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the *External water treatment* submenu and make the setting, see section 1.3.

8.10 Setting the water hardness (optional)

With optional softener only.

NOTE: The softener must be set to the existing water hardness (ask at the local water works).

The following settings can be entered into the **Setting the water hardness** submenu.

Setting	Selection
Set water hardness	Set as default during commissioning
	Factory setting: 30°dH
	Possible range: 0–30°dH

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the **Setting the water hardness** sub-menu and make the setting, see 1.3.

8.11 Activate/deactivate VAPOSTOP (optional)

Only for models with the VAROSTOP option.

In the **VAPOSTOP** sub-menu, a vaporisation phase (30 sec.) can be activated or deactivated after washing.

Setting options, operating and hygiene data

Setting	Selection
VAPOSTOP	programme
	Deactivating

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the VAPOSTOP submenu and make the setting, see section 1.3.

8.12 Displaying the operating/hygiene data

The following data can be called-up from the *Operating/hygiene* data submenu.

Setting	Selection
Display operating data	Commissioning date
	Operating hours until next service
	Total operating hours
	Wash cycles overall
	Total water consumption
	Operating hours day
	Daily wash cycles
	Daily water consumption
	Remaining capacity external water treatment
Hygiene data	See section 1.12.1
Report	See section 1.12.2

Displaying the setting:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the *Operating/hygiene data* submenu.
- Open the corresponding submenu and display the setting, see section 1.3.

8.12.1 Display hygiene data

Hygiene-relevant events, data and messages are listed in this menu option.

The list starts with the current date and the last event that occurred on this day. The subsequent events occurring on this day then appear, followed by the events occurring the day before.

A maximum of 1500 events are saved. Older lists are deleted.

Pushing button © opens the list of completed wash programmes.

Setting options, operating and hygiene data

The following data are saved:

Hygiene data	Program set point temperature too low	
	Thermal disinfection aborted	
	Wash process aborted	
Messages	Rinse aid empty	
	Rinse aid deficiency remedied	
	Detergent empty	
	Detergent deficiency remedied	
	Salt empty	
	Salt deficiency remedied	
	Service interval expired	
	Half-cartridge depleted	
Events	Filling program	
	Pump-out program	
Washing program		

8.12.2 Transmit report

This menu option is for transmitting operating and hygiene-relevant data in txt format to a USB stick. This format can be imported and processed using standard software.

Procedure:

- Open the door.
- ▶ Remove sealing cover from USB port (right side cover).
- Insert USB stick into the port.
- ▶ Select the *Report* menu option.
 - → After a successful download, a message appears in the display.
- ▶ Remove USB stick.
- Close off USB port with the sealing cover.

8.13 Setting automatic switch-on

The *Timer* submenu is for defining times for automatic machine switch-on.

This can be done in two ways:

- The Weekly timer programme menu option can be used to define various switch-on times for individual weekdays.
- The *Daily timer programme* can be used to define a non-recurring switch-on time for a specific date.

The switch-on must be set to active via the separate Activate/

Setting options, operating and hygiene data

deactivate menu option. The text frame shows the most recently selected of the four options. When switch-on is activated, a small clock symbol remains in the top left-hand section of the display for 30 minutes after the machine has been turned off.

Setting	Selection
Weekly timer programmes	Weekdays and times
Daily timer programmes	Date and time
Activate/deactivate	Weekly timer programme ON
	Daily timer programme ON
	Weekly and daily timer programme ON
	Timer OFF

Making the settings:

- ▶ Open the operator menu, see section 1.2.
- ▶ Open the menu *Timer* and make the setting, see section 1.3.

The date and time can be selected and altered using the display navigation buttons.

The switch-on must also be set to active via the separate *Activate/deactivate* menu option.

When the time and date are reached, the machine switches on.

Weekdays and an individual switch-on time can be selected and altered using the display navigation buttons.

For weekdays on which **no** switch-on is to occur, **no** time may be saved.

After the switch-on times for each weekday have been entered, the switch-on must be set to active via the separate *Activate/deactivate* menu option.

When the time is reached, the machine switches on.

The *Activate/deactivate* menu option offers the following four selection options:

- Daily timer programme on: Automatic switch-on is activated for a specific date entered.
- Weekly timer programme on: Automatic switch-on is activated for the saved weekdays and individual times.
- Daily and weekly timer programme on: Automatic switch-on is activated for a specific date entered and for the saved weekdays.
- Timer off: Automatic switch-on is generally deactivated.

Daily timer programme

Weekly timer programme

Activate/deactivate

Fault indications and problems

9 Fault indications and problems

9.1 Fault indications

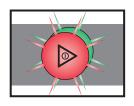
Displayed fault messages are shown in order of priority. They **must be** acknowledged with the display navigation button ⑤.

Acknowledged error messages for which the error is still pending are first hidden to enable further messages to be displayed.

If all fault messages have been acknowledged but errors are still pending, these messages will then be shown again.

Information

- Limited operation is possible.
- The ON/OFF button ① illuminates green/red alternately.
- The error code is shown in the display (see table).



Error code	Message text	Measure
003	Temperature not reached. Contact service technician.	Contact your HOBART Service Partner.
004	Temperature not reached. Contact service technician.	Contact your HOBART Service Partner.
800	Temperature not reached. Contact service technician.	Contact your HOBART Service Partner.
009	Temperature not reached. Contact service technician.	Contact your HOBART Service Partner.
021	Fault in the drain system. Clean the drain hose if necessary and pump-out the machine again.	Clean the drain hose if necessary and pumpout the machine again.
022	Fault in the drain system. Clean the drain hose if necessary.	Clean the drain hose if necessary.
029	Programme aborted. Close hood.	Close hood.
036	Detergent deficiency. Top up detergent.	Refill detergent (see section 1.9).
037	Rinse aid deficiency. Top up rinse aid.	Refill rinse aid (see section 1.9).
038	Input voltage too high! Machine has been switched off.	Have the input voltage checked by the (site) electrician.
039	Filling programme aborted. Close hood.	Close hood.
041	External water treatment depleted. Replace.	Replace part or full desalination cartridge.
042	Osmosis pre-filter depleted. Replace.	Replace pre-filter.
043	Salt deficiency. Refill regenerating salt.	Refill regenerating salt (see section 1.8).

Fault indications and problems



Faults

- Limited operation is not possible.
- The ON/OFF button ① illuminates red permanently.
- The error code is shown in the display (see table).
- Once the error display has been acknowledged, the machine turns off.

Error code	Message text	Measure
001	Hot water tank temperature sensor fault. Contact service technician.	Contact your HOBART Service Partner.
002	Hot water tank temperature sensor fault. Contact service technician.	Contact your HOBART Service Partner.
006	Wash tank temperature sensor fault. Contact service technician.	Contact your HOBART Service Partner.
007	Wash tank temperature sensor fault. Contact service technician.	Contact your HOBART Service Partner.
011	Wash chamber temperature sensor fault. Contact service technician.	Contact your HOBART Service Partner.
012	Wash chamber temperature sensor fault. Contact service technician.	Contact your HOBART Service Partner.
013	Disinfection not guaranteed. Contact service technician.	Contact your HOBART Service Partner.
014	Hot water tank pressure sensor fault. Contact service technician.	Contact your HOBART Service Partner.
015	Hot water tank pressure sensor fault. Contact service technician.	Contact your HOBART Service Partner.
016	Wash tank pressure sensor fault. Contact service technician.	Contact your HOBART Service Partner.
017	Tank pressure sensor fault. Contact service technician.	Contact your HOBART Service Partner.
018	Fault in the filling or drain system. Contact service technician.	Contact your HOBART Service Partner.
019	Strainers blocked. Remove, clean and re-insert.	Remove, clean and re-insert strainers.
020	Wash tank pressure sensor fault. Pump out machine.	Pump out machine.
023	Fault in the filling system. Supply quantity too low.	Check site flow pressure.
031	Fault in the filling system. Check water supply.	Check water supply.
032	Fault in the filling system. Check water supply.	Check water supply.
033	Fault in the filling system. Contact service technician.	Contact your HOBART Service Partner.
035	Insert tank cover strainer correctly.	Insert tank cover strainer correctly.
044	Salt deficiency. Refill regenerating salt.	Refill regenerating salt (see section 1.8).
045	Number of rinse cycles without regenerating salt exceeded. Contact service technician.	Contact your HOBART Service Partner.
052	Fault in the filling or drain system. Contact service technician. Disconnect machine from the water and power supply!	Contact your HOBART Service Partner.

Fault indications and problems

9.2 Remedying the problem

9.2.1 Poor wash result

Nature of the problem	Possible cause	Remedy
Wash ware not clean.	Wash arm stiff (must rotate easily by hand).	Remove wash arms and clean them thoroughly.
		Also check water outlet from machine to wash arm is clear.
	Wash arm nozzles are clogged (visual check).	Remove wash arm, remove cleaning caps and rinse wash arm thoroughly until all soiling is removed.
		Replace cleaning caps.
	Rinse nozzles clogged (usually by lime deposit).	Remove rinse arms and descale them in separate container.
		Check site softening system for function.
	Detergent concentration is too low or too high.	Check detergent concentration setting.
	Coarse strainer clogged.	Remove, empty and clean strainer.
	Fine strainer clogged or obstructed by lime deposits.	Remove fine strainer. If heavily soiled, soak in a vinegar solution. Then clean it thoroughly with a brush until the pores are free.
		The fine strainer should generally be cleaned daily (see operating instructions).
	Wrong programme selected for heavily soiled wash ware.	Select programme with longer wash cycle.
Wash ware does not dry properly.	Rinse aid dosing too low.	Increase concentration (see operating instructions).
	Wash ware still greasy.	Detergent concentration too low: increase (see operation instructions).
		Check if detergent is appropriate. If not, choose a stronger one.
		Drain contaminated water and refill machine. Clear wash ware more thoroughly.
	Wash ware remains in the machine too long at the end of wash cycle.	Remove wash ware as soon as cycle is completed to enable it to dry.
Streaks and spots on wash ware.	Rinse aid concentration too high (stripe or bubble formation).	Reduce concentration (see operating instructions).
	Hard water or high mineral content.	Guide values: 0 - 3° dH Conductance up to 100 μS/cm
	Inadequate rinse aid dosing causes stains.	Increase rinse aid concentration (see operating instructions).
	Machines with integrated softener: use of wrong salt (e.g. tablets).	Do not use salt tablets.

Fault indications and problems

9.2.2 Other problems

Nature of the problem	Potential causes	Remedy
Machine switches off suddenly during operation.	Machine coupled to a maximum system or locked against other current consumers.	Have machine connected separately (electrician!).
	A site fuse has tripped.	Check site fuses.

Maintenance

ΕN

10 Maintenance



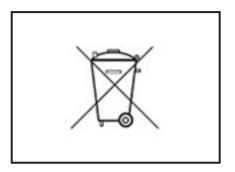
In order to maintain the warranty, as well as a permanently safe, efficient, and trouble-free operation of the machine(s), the required maintenance must be carried out by authorized service technicians.

We therefore recommend the conclusion of an inspection and maintenance contract, which guarantees qualified support by specially trained service technicians according to a time schedule based on the operating conditions.

In Germany, your HOBART machines are governed by the Ordinance on Industrial Health and Safety and must be inspected by a qualified electrician in accordance with the intervals specified in BGV A3.

Disposal

11 Disposal



The machine operator is responsible for disposing of the machine and its operating materials correctly and in accordance with environmental regulations. Observe the national and local legal provisions and regulations.

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