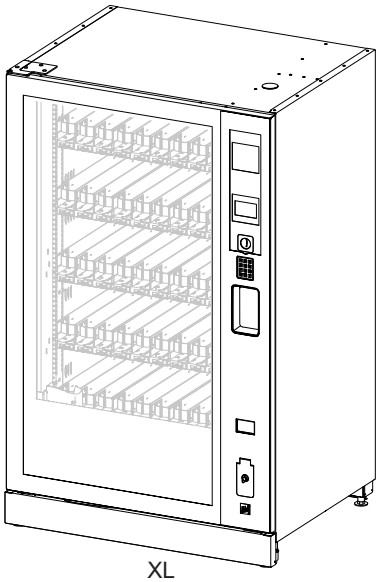
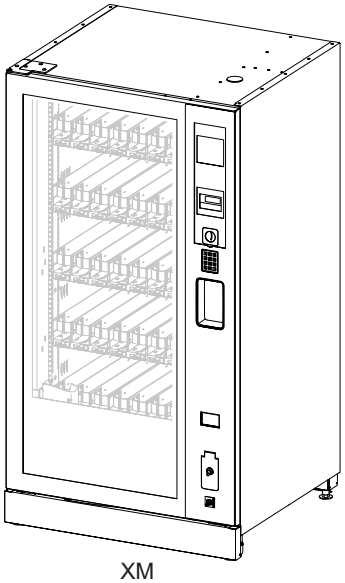
Original Operating Instructions

GF Robimat XL
GF Robimat XM
GF Robimat XS



XL



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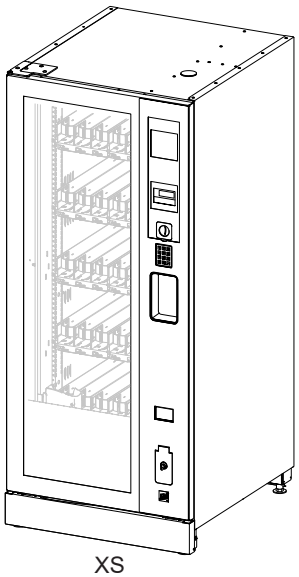

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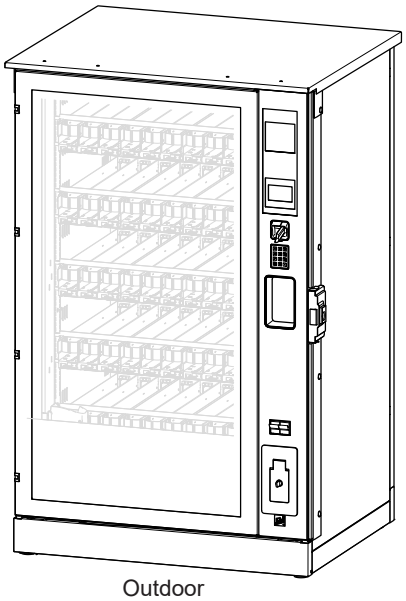

Outdoor

en

06.08.2024

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Contents

1. General

Changes

The text, images and data in this manual reflect the technical status of the machine at the time of printing. We reserve the right to make changes in the interest of ongoing development.

Document completeness

This document has a total of 56 pages. If all the pages are present in consecutive order, your document is complete.

Availability of the operating instructions

In order to ensure safe use of the machine, the operating instructions must always be accessible to the operator. These should be readily available for referral at all times.

These operating instructions can also be accessed via the Internet from our secure download centre: (http://www.sielaff.com/download-center/).

Third-party documentation

Different payment systems such as coin mechanisms, banknote readers or cashless payment systems can be installed in this vending machine.

Please note that special accessories may be required and special settings in the machine software may have to be changed in order to ensure error-free use of connected payment systems. Please refer to the additional third-party documentation of the respective manufacturer.

Manufacturer

Sielaff GmbH & Co. KG
Automatenbau Herrieden
Münchener Straße 20
91567 Herrieden
Germany

Hotline

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	+49 9825	**- 18 31 5102**	**Service hotline**
	service@sielaff.de		
Fax	+49 9825	- 18 31 5499	Service
	+49 9825	- 18 31 5299	Spare parts orders

export@sielaff.de; www.sielaff.com

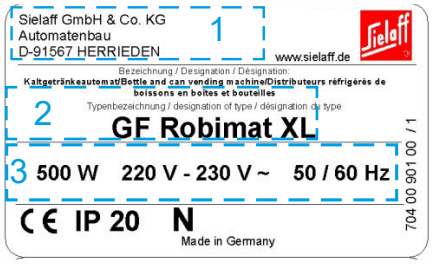
Versions

Please note that these operating instructions cover different machine versions. For this reason, some information may not apply to your machine.

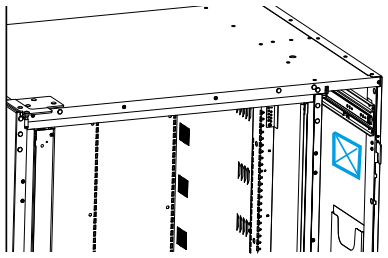
These instructions apply to the following versions:

Designation	Part no.	Note
GF Robimat XL EB04	7040000014	Stainless steel panel
GF Robimat XL EW04	7040000024	Stainless steel panel, white inside
GF Robimat XL RB04	7040000034	RAL panel
GF Robimat XL RO04	7040000044	RAL Outdoor
GF Robimat XM EB04	7060000014	Stainless steel panel
GF Robimat XM EW04	7060000024	Stainless steel panel, white inside
GF Robimat XM RB04	7060000034	RAL panel
GF Robimat XS EB04	7080000014	Stainless steel panel
GF Robimat XS RB04	7080000034	RAL panel

Identification, Machine type plate



1 Manufacturer
2 Machine type
3 Electrical supply ratings



Machine identification plate

Copyright

Features

The Robimat is a machine for vending cooled drinks in cans, PET and glass bottles. The drinks do not fall into the product delivery outlet but are transported using a lift system. This means that fragile products can also be vended.

Specifications for the products that can be vended are listed in the "Product specifications" chapter of these operating instructions.

A two-line (LCD) display provides selection and system information.

All machine functions are managed and checked via a microprocessor module. Sales and error data is stored on the machine control board.

The selection keypad is also used for programming the vending machine control board during servicing.

The vending machine is prepared for operation with a coin mechanism as standard.

1.1 Safety Information

General information

- The operating instructions must be read and understood before the unit is put into operation.
- They must be kept at the place of use in an easily accessible place where they can be consulted at any time.
- During transport, installation, operation, maintenance and repair of the vending machine, the following regulations and directives - in their latest version - must be observed in particular: Regulations of the responsible power supply company, UVV - accident prevention regulations, guidelines of the employers' liability insurance association, trade regulations, EC directives, VDE regulations, observance of the usual hygiene regulations, country-specific regulations; Industrial Safety Ordinance - Workplace Ordinance

Transport, installation

- Due to its high centre of gravity, there is a risk of the machine tipping over. Therefore, always proceed with caution. Do not lower the machine in a jerky manner.
- The vending machine must not be transported when full.
- The vending machine must be set up on a stable, level base. It must be fixed to the wall or floor.
- Only install the machine in locations corresponding to its protection class. The machine's protection class is shown on the identification plate.

  IP20 The machine is suitable for installation in dry areas and within the limits specified for permitted environmental conditions (see Technical data).

  IP24 The vending machine is suitable for installation outdoors and within the limits specified for permitted ambient conditions (see Technical data).
- Machine installation and repairs are only to be carried out by trained service engineers.
- The ventilation distance between the rear panel of the vending machine and the installation site must be maintained (min. 5 cm)
- Do not place the vending machine with R-290 cooling directly next to a depression in the ground (basement drain, pit, trough, etc.).

Operation

- The machine can be used by children aged 8 and above and by people with limited physical, sensory or mental abilities or a lack of experience and/or knowledge, provided that they are supervised by another person responsible for their safety or have been instructed in how to use the machine safely and are able to comprehend the resulting dangers. Cleaning and maintenance work must not be carried out by children without supervision.
- Children should be supervised to ensure that they do not play with the machine. The vending machine is not suitable for use by children under 3 years old.
- The mains plug must be easily accessible. Appliance plugs must never be touched with wet hands or inserted into sockets when damp.
- In addition to the cleaning work, maintenance work must be carried out on the vending machine.

Cleaning

- The machine dispenses food products. To avoid any health hazards for the consumer, the vending machine must be cleaned at regular intervals.
- Only use food-safe, approved agents for cleaning
- Do not clean the machine with a water hose or a high-pressure cleaner.

Repairs

- The mains plug must be disconnected before carrying out any work on electrical parts.
- The use of the service key is reserved exclusively for trained personnel. When the service key is inserted, a protective device is bypassed.
- Mains voltage is still present at the main switch when the main switch is switched off. Always disconnect the mains plug when working in this area.
- When the product basket is guided to the product output position (right), the telescopic drawer must not be pulled out because of the risk of damage.
- Use original spare parts only.
- Only products approved by SIELAFF may be used.
- Any modification or conversion of the machine is prohibited. SIELAFF disclaims any liability for any defect claims resulting from the aforementioned not being adhered to!

Maintenance safety checks

- The operator must carry out annual safety checks in order to operate the vending machine safely.

Intended use

- The vending machine may only be used for dispensing packaged, dimensionally stable products with the characteristics of max. diameter 72 mm, max. height 270 mm and max. weight 910 grams. The products must not be highly flammable or explosive. Any other form of use is considered improper.

Cooling with refrigerant R-290 (propane)

- After plugging in the mains plug or switching on the residual current circuit breaker, the safety shut-off device needs approx. 2 minutes to start. During this time, the vending machine has no further function.
  If the vending machine still does not start, the shut-off device may have switched off the vending machine due to faulty cooling.In this case any open flames and incandescent materials must be removed to a 5m range from the machine.
- The gas sensor installed in the cooling area must not be tampered with because it may endanger persons and the environment.
- After applying the shut-off device, the vending machine may only be put into operation by trained personnel.
- Do not damage the refrigerant circuit.

Identifying the cooling with refrigerant R-290

- Units with refrigeration systems in which the refrigerant R-290 (propane gas, C3H8) is used are equipped with a gas sensor system in conjunction with a shut-off device for safety reasons. In the event of refrigerant leakage from the cooling system, an explosive mixture could occur inside the unit under unfavourable circumstances. The shut-off device ensures that the unit is disconnected from the mains supply in good time in this case and that as a result there are no longer any ignition sources inside.
- The data plate of the vending machine contains information about the built-in cooling.
- The data plate is located inside most vending machines, in the upper right-hand corner. The warning symbol shown below is also attached (warning flammable substances, DIN 4844-21).

If cooling with R-290 is installed: Symbol for “Warning: flammable substances”

1.2 Explanation of signs and symbols

The vending machine has been manufactured in line with current technological standards. Nevertheless, even the most expertly designed machine cannot be without risks.

In order to ensure sufficient safety for the operator, additional safety instructions are provided. Attention is drawn to these using the conventions described below.

Observing this information is the only way to ensure adequate operational safety.

Texts labelled with the following symbols have different meanings:

DANGER
Indicates immediate danger that could result in death or severe injury.

WARNING
Indicates a possibly dangerous situation that could result in death or severe injury.

CAUTION
Indicates a dangerous situation that could result in minor injury or damage to the machine.

NOTE
Note that should be observed to avoid damaging the vending machine.

TIP
Information to facilitate handling and use of the machine

In addition, the following symbols are used in some places:

WARNING: electrical energy! Danger to life!
This symbol warns that electrically live components are installed in this area. Covers marked with this symbol may only be removed by a qualified electrician.

Observe handling regulations when dealing with electrostatically sensitive components and modules (ESD)
Covers marked with this symbol have electrostatically sensitive devices located behind them.

Contact with plug-in connections, conductor tracks and component pins must be avoided at all costs. Only specialist personnel with ESD knowledge are authorised to carry out work!

DANGER! Flammable substances!
This symbol warns of flammable substances. There is a risk of serious injuries or death. Ignition sources, such as burning cigarettes or lighters, must be kept away when opening the vending machine door.

This symbol means that the marked product must not be disposed of together with household waste at the end of its life. Instead, it must be separated and taken to a collection point for the relevant type of waste. Please be aware that the details of the disposal procedure may differ in your country due to the regulations in force there.

1.3 Technical Data

Machine			
Type (Standard specification for climate class N)	Robimat XL	Robimat XM	Robimat XS
Selections	max. 72 (9 products; 8 shelves)	max. 56 (7 products; 8 shelves)	max. 40 (5 products; 8 shelves)
Drawers	max. 24 (3 drawers per shelf)	max. 24 (3 drawers per shelf)	max. 16 (2 drawers per shelf)
Height	1.830 mm	1.830 mm	1.830 mm
Width	1.140 mm	990 mm	790 mm
Depth	880 mm	880 mm	880 mm
Weight	approx. 360 kg	approx. 300 kg	approx. 280 kg
Electrical connection	220-230 V; 50/60Hz; min. 10 A		
Power consumption	max. 750 W	max. 750 W	max. 500 W
Ambient temperature (machines with standard chiller unit)	+16°C to +32°C		
Ambient temperature (outdoor with heater)	-20°C to +32°C		
A-rated sound-pressure level emission in the workplace	L_{pA} < 70 dB(A)		
Uncertainty	K_{pA} = 6 dB		
The values were determined in accordance with EN 60335-2-75:2004+A1:2005+A11:2006+A2:2008+A12:2010 in conjunction with EN ISO 11202:2010. The sum of the noise emission value and the associated uncertainty represents an upper limit of the values that can occur in measurements			

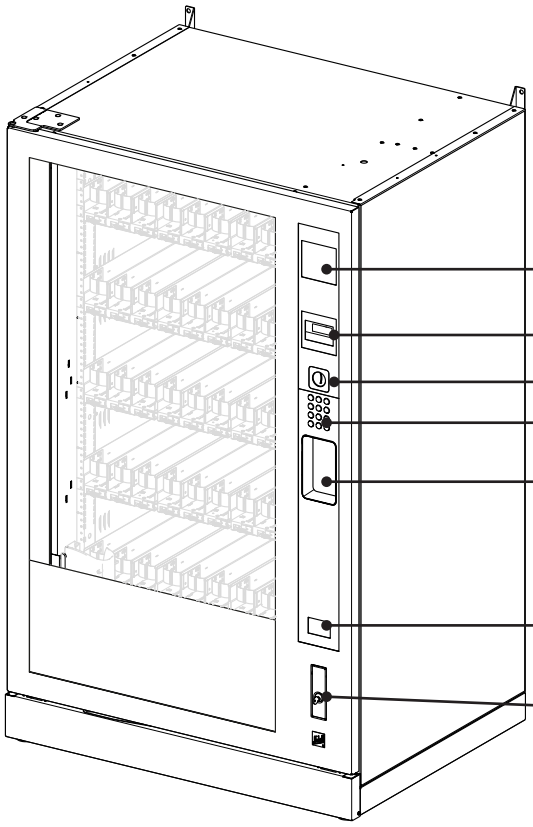
- Weight and power consumptions are standard values. The weight may vary depending on optional features.
- In addition to the chiller unit a heater is fitted in the outdoor machine. The heater cannot be switched on manually. If the ambient temperature on site falls below 0 °C, the heater is switched on by the vending machine control board. In this way the interior is kept frost-free.

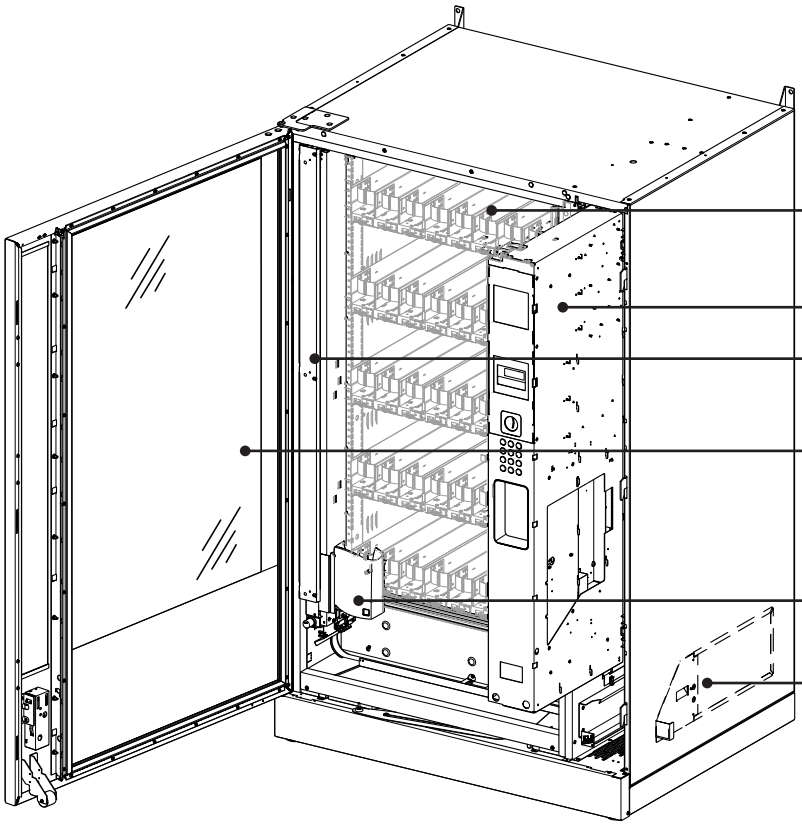
Information regarding regulation (EU) no. 517/2014

Chiller unit	Power	Cooling agent	Filling quantity	GWP	CO2-equivalent	Robimat
SKA 425 E [1]	380 W	R290	130 g	3	0.00039 t	XL, XM
SKA 772 E [1]	650 W	R290	150 g	3	0.00045 t	XL, XM
SKA 773 E + H [1]	650 W	R290	150 g	3	0.00045 t	XL Outdoor
SKA 722 E [1]	380 W	R290	130 g	3	0.00039 t	XS

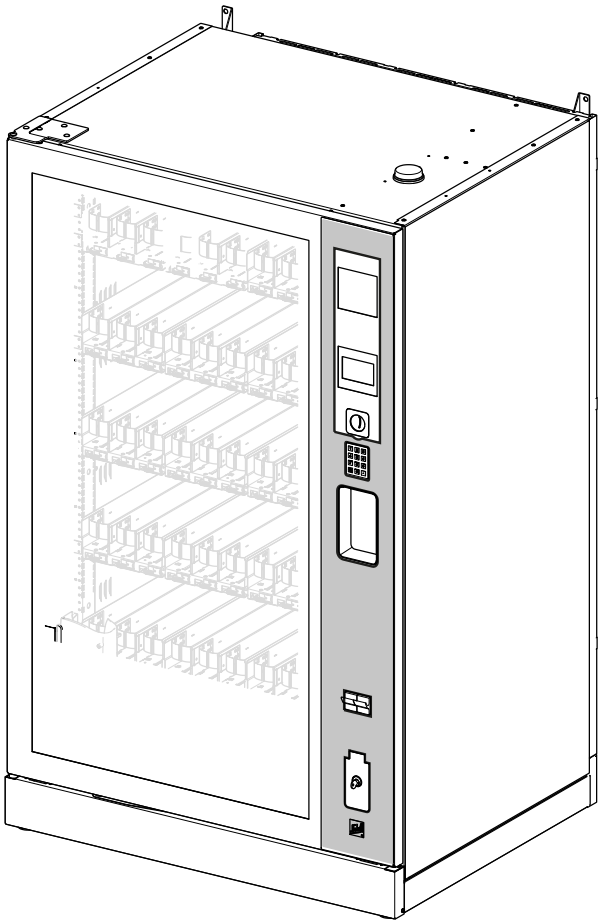
1) contains propane gas, C3H8 in hermetically sealed equipment.

2. Machine diagram

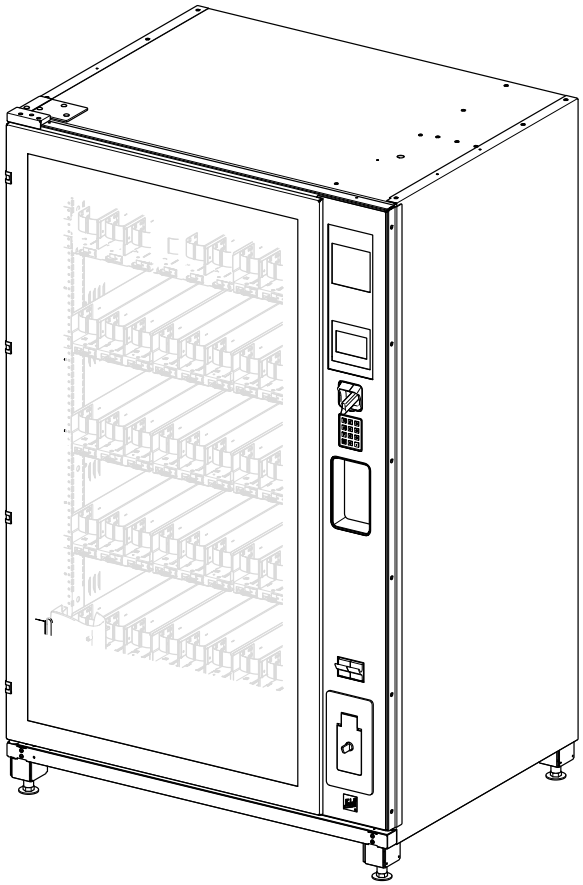




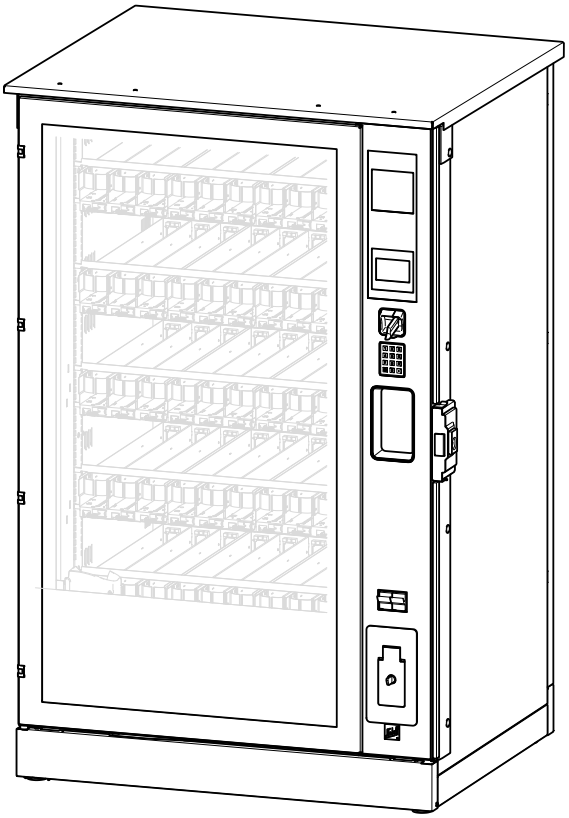
EC-version (stainless steel operator panel)



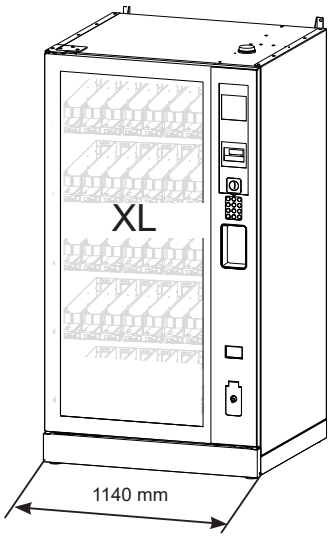
Version with High-Security



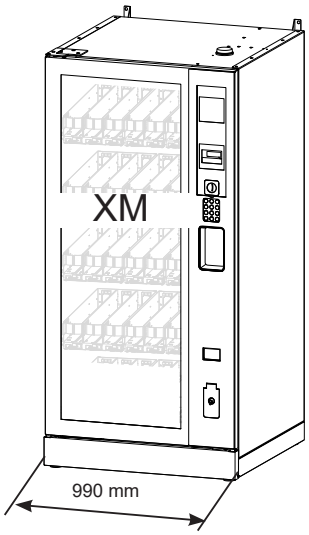
IP 24- version



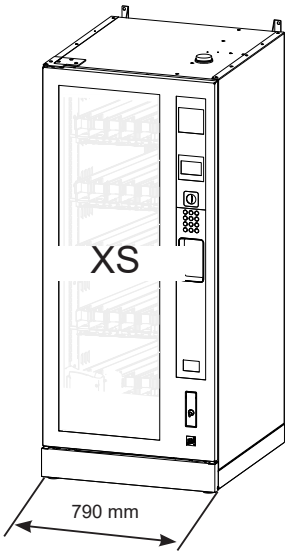
Per shelf:
9 drawers (standard)
10 drawers (optional)



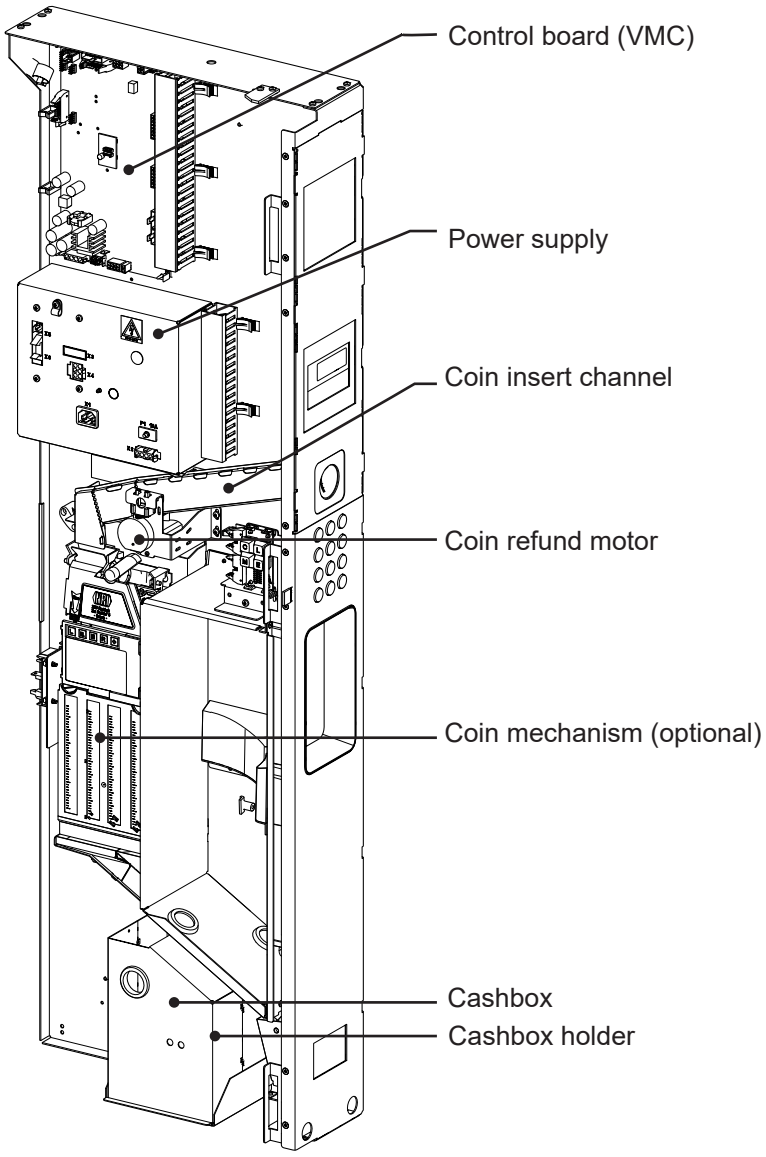
Per shelf:
7 drawers (standard)
8 drawers (optional)



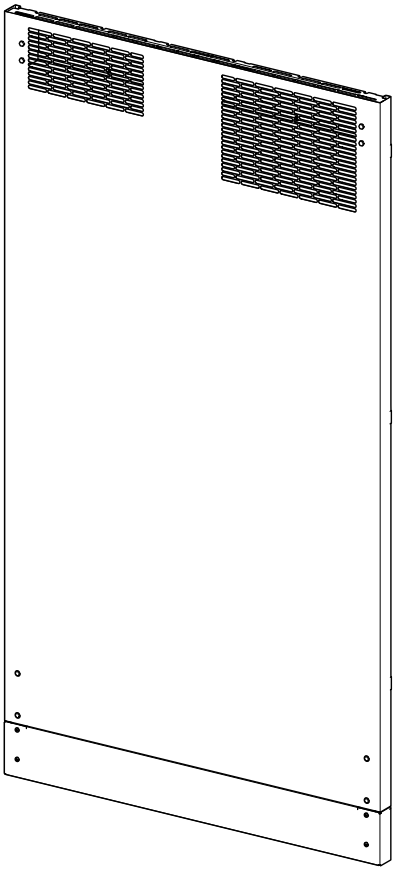
Per shelf:
5 drawers (standard)
6 drawers (optional)



Sliding drawer unit, pull-out unit

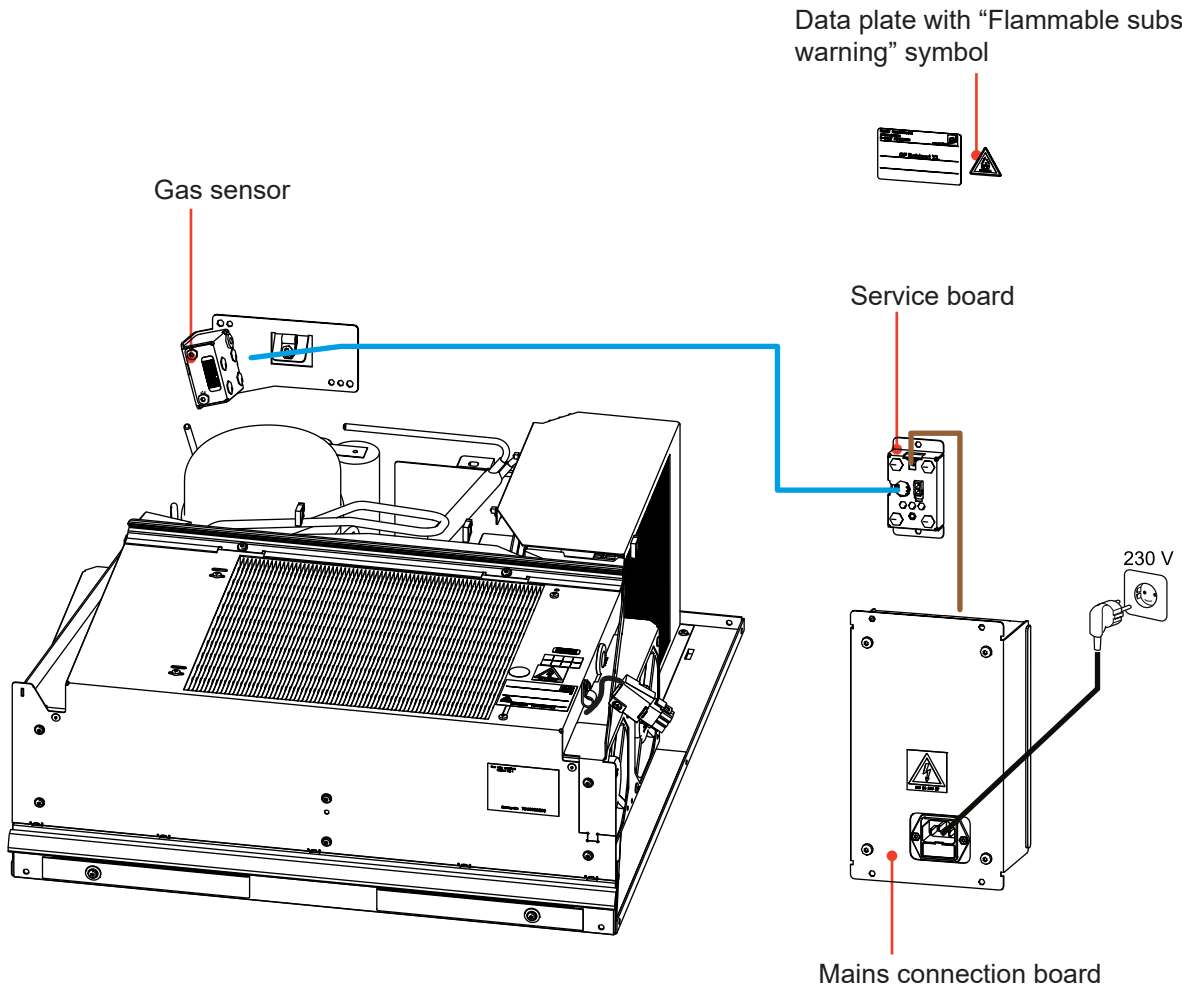


Advertising rear panel (optional)



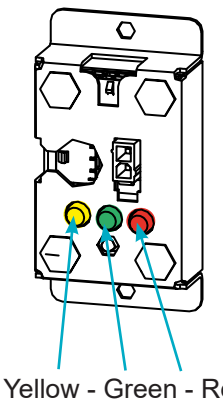
2.1 Vending machines with R-290 cooling

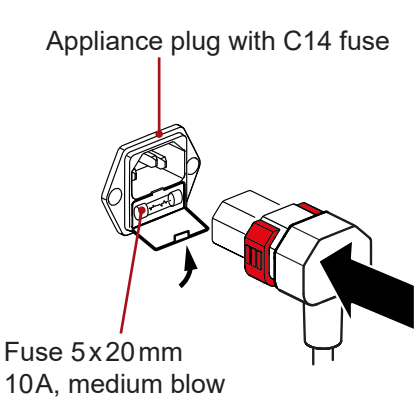
Units with refrigeration systems in which the refrigerant R-290 (propane gas, C3H8) is used are equipped with a gas sensor system in conjunction with a shut-off device for safety reasons.

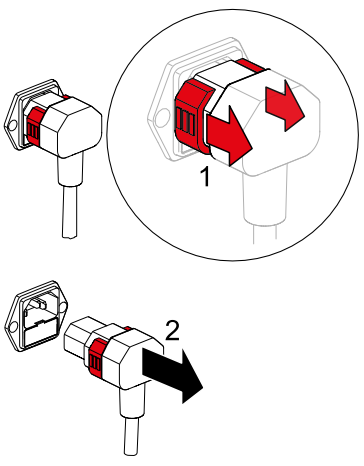


Red lights up 1 sec.
Self-test in progress
Red lights up permanently
Self test failed
Green lights up permanently
Self-test successful
Yellow lights up permanently
The mains voltage for the vending machine has been released.

Service board







3. Transport

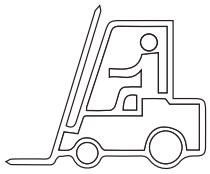
CAUTION! Danger to life!

Improper transport can cause the machine to tip over. Therefore, only move the machine with suitable means of transport.

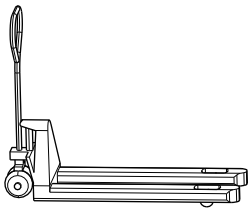
Notes

- Only move vending machines with a pallet truck or forklift. Place the forks on the wide side of the machine. Remove the plinth trims beforehand.
- Do not transport the machine as a suspended load.
- Always move the machine with caution.
- Prevent it from sliding sideways.
- Do not move the vending machine on sloping ramps, use transport lifts instead.
- Observe the machine's centre of gravity. Due to its design, the centre of gravity is high. There is a danger of tipping over.

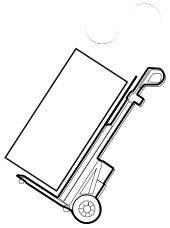
Suitable means of transport



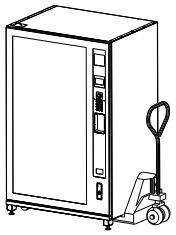
Fork lift



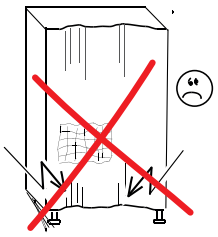
Pallet truck



- Vending machine hand truck

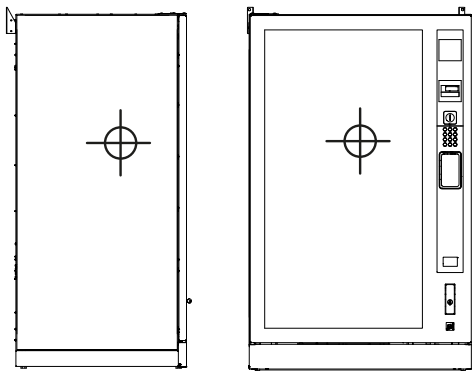


Pallet truck



Do not damage the rear panel!

Machine's centre of gravity



Centre of gravity

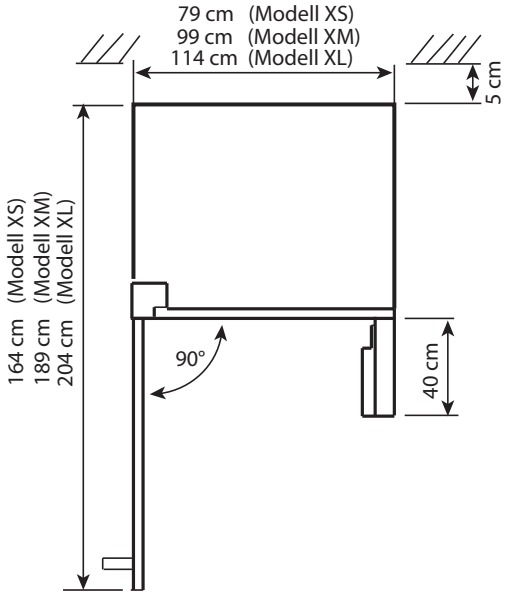
4. Installing the machine

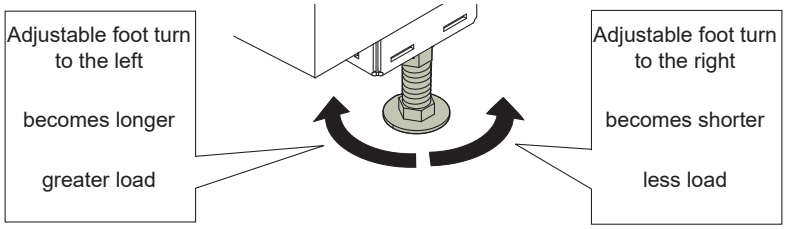
4.1 Requirements on site

- The ground must have sufficient load-bearing capacity. Note the weight (see technical data).
- Do not place the machine in air containing salt or chlorine, such as an indoor swimming pool.
- The vending machine must not be placed in areas that are cleaned with a high-pressure cleaner or a water hose.
- The vending machine window should not be exposed to direct sunlight. The cooling system is not designed for this.
- In unfavourable weather conditions (high humidity, high outside temperature), the windows of the vending machine can fog up, for example. This phenomenon is only temporary and not a reason for complaint.
- The machine must be exactly horizontal.
- The vending machine is supplied with an IEC connection cable and must be connected to a properly installed earthed socket.
- Do not use extension leads or multiple sockets.
- A fixed connection may only be installed by an electrician.
- The plug must be accessible after setting up the unit

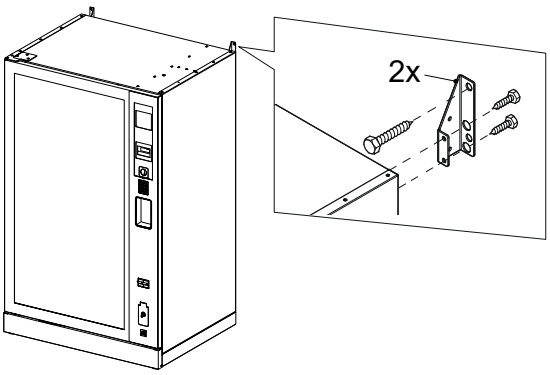
4.2 Installation

1. *Unpack, position, level and secure the machine.*
2. *Open the machine door; the key can be found at the back of the machine by the power cable*
3. *Remove transportation locks*
4. *Establish electrical connection*
5. *Fit intake protection / kickplates (optional)*
6. *Fit coin mechanism (optional) etc.*

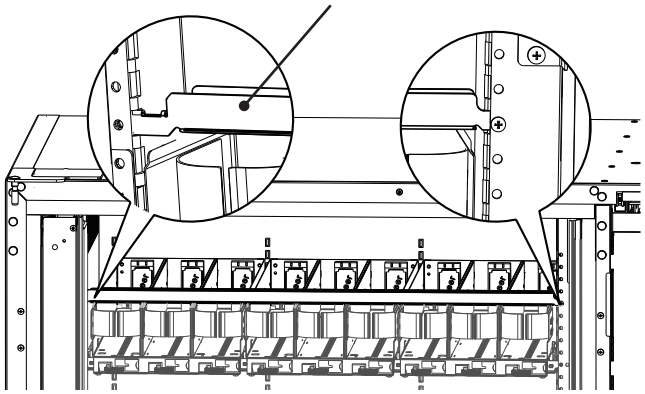




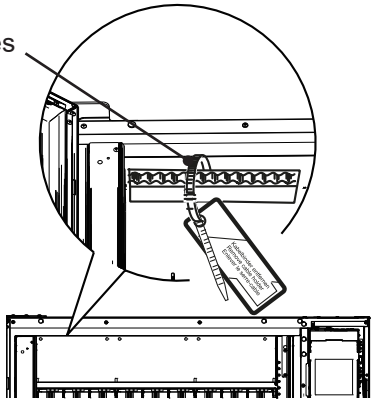
The wall brackets supplied must be used to fix the machine to the wall. They must be fastened to the machine using the screws provided. Use appropriate screws and dowels for the wall.

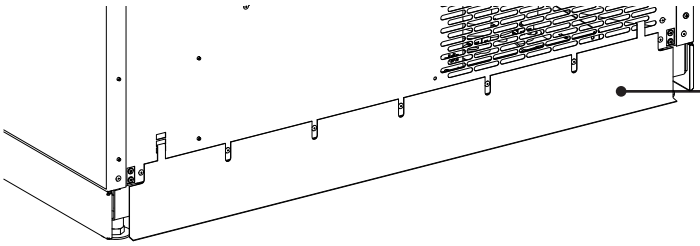


Transportation lock: Remove screw, remove shelf retaining brace



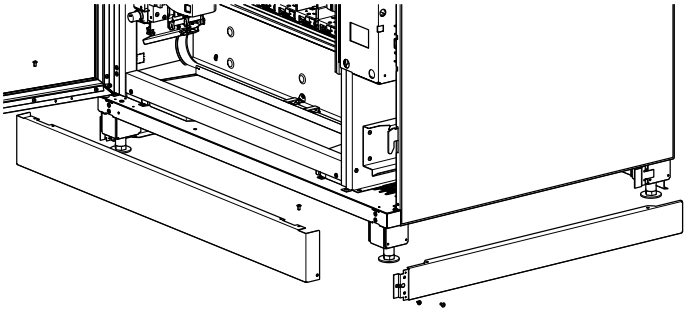
Remove cable ties

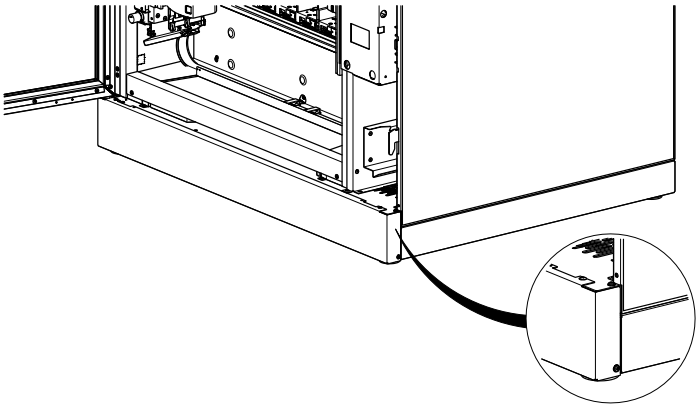




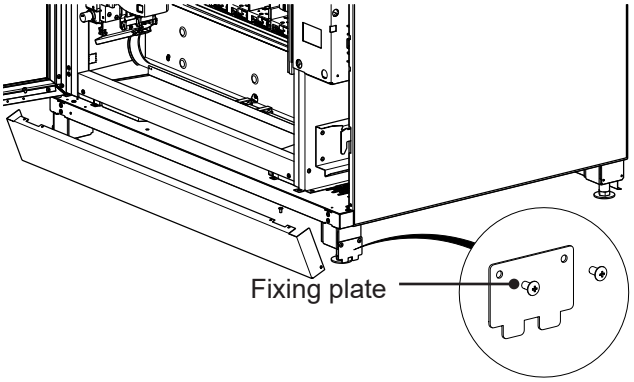
Intake protection (optional; not with advertising rear panel)

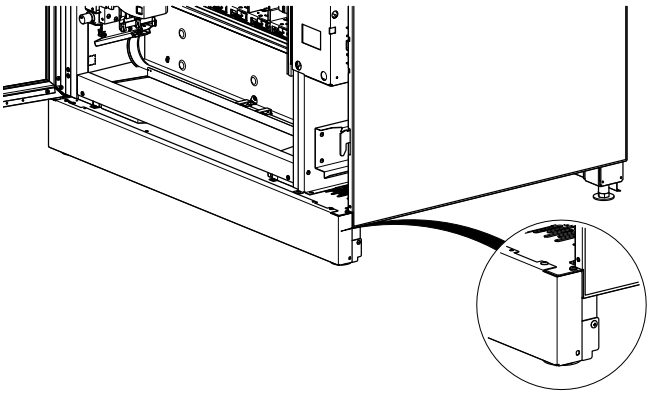
Fit kickplates (optional)





Fit front kickplate (optional)

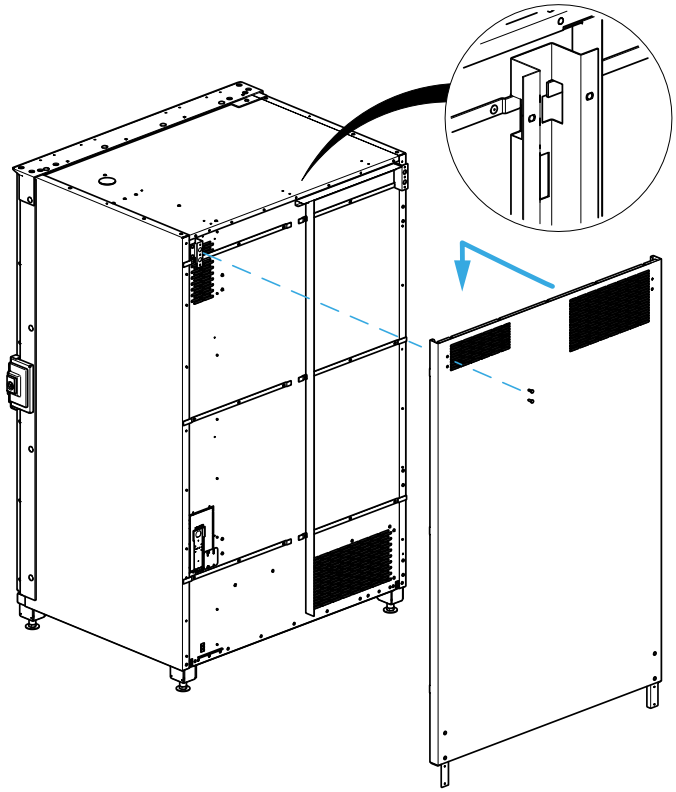


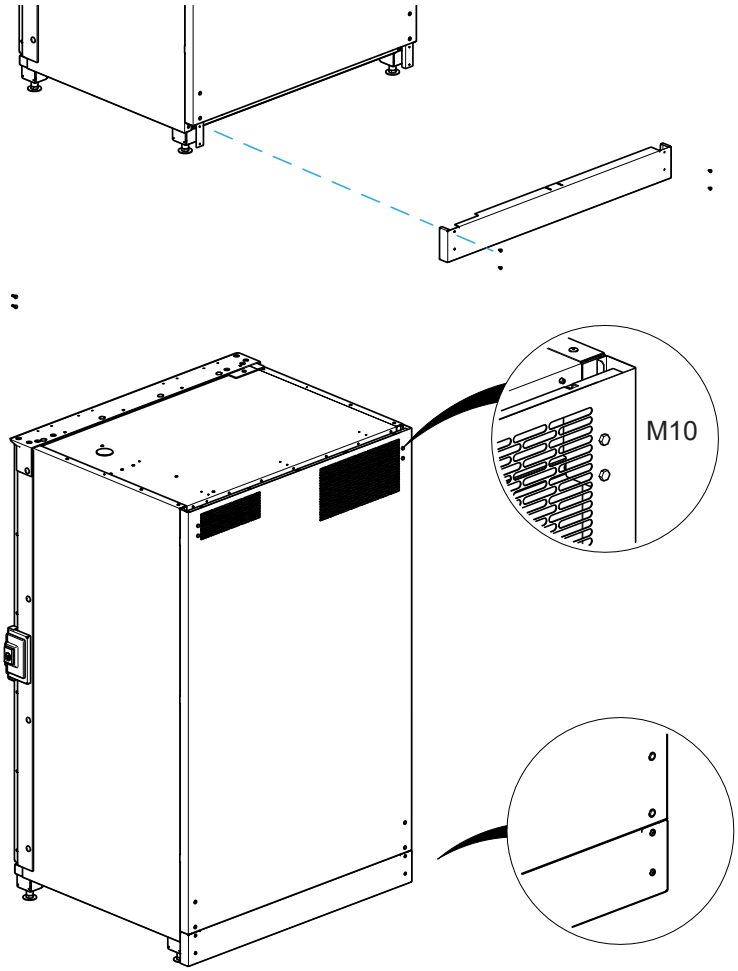


4.3 Advertising rear panel (optional)

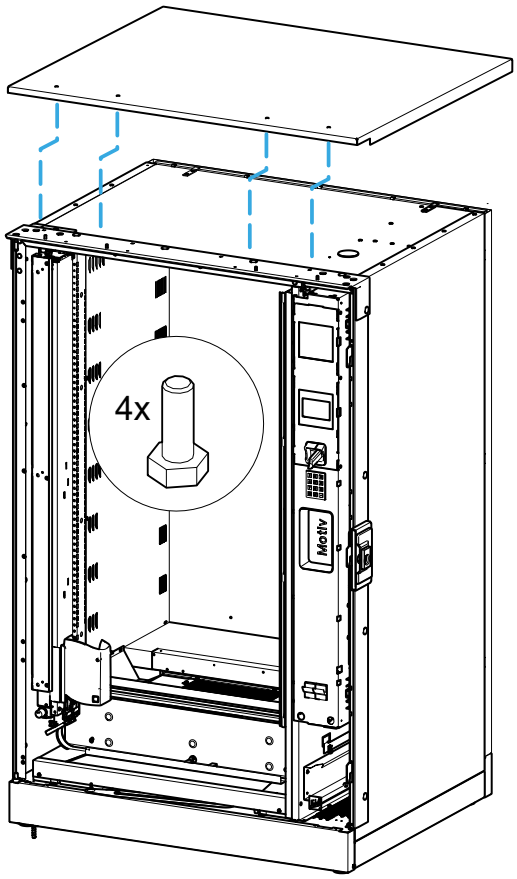
A promotional rear panel can be fitted to free-standing vending machines. This can be used as advertising space by sticking films or posters on it.

- The rear advertising panel is mounted from the top and secured with screws.
- At the bottom, the kickplate is attached and secured with screws.





4.4 Rain shield



4.5 Installing the coin mechanism (optional)

Most of the machines are set and tested at the factory for a specific protocol for the respective coin mechanism. The coin mechanism is usually installed at the customer's premises by the customer.

4.5.1 Inserting the coin mechanism mechanically

Observe the documentation of the coin mechanism manufacturer.

Attach the coin mechanism in the designated place. If necessary, insert the locking screw.

4.5.2 Adjusting the eccentric disc

Set the motorised return so that the return lever on the coin mechanism is safely actuated when the return key is pressed. Adjust the insertion channel so that the coins can fall properly into the insertion funnel of the coin mechanism.

4.5.3 Connecting the adapter set

The coin mechanism and the control unit (VMC) must be connected electrically.

Special accessory - Executive kit: 704 01 558 00

Special accessory - BDV kit: 310 02 530 00

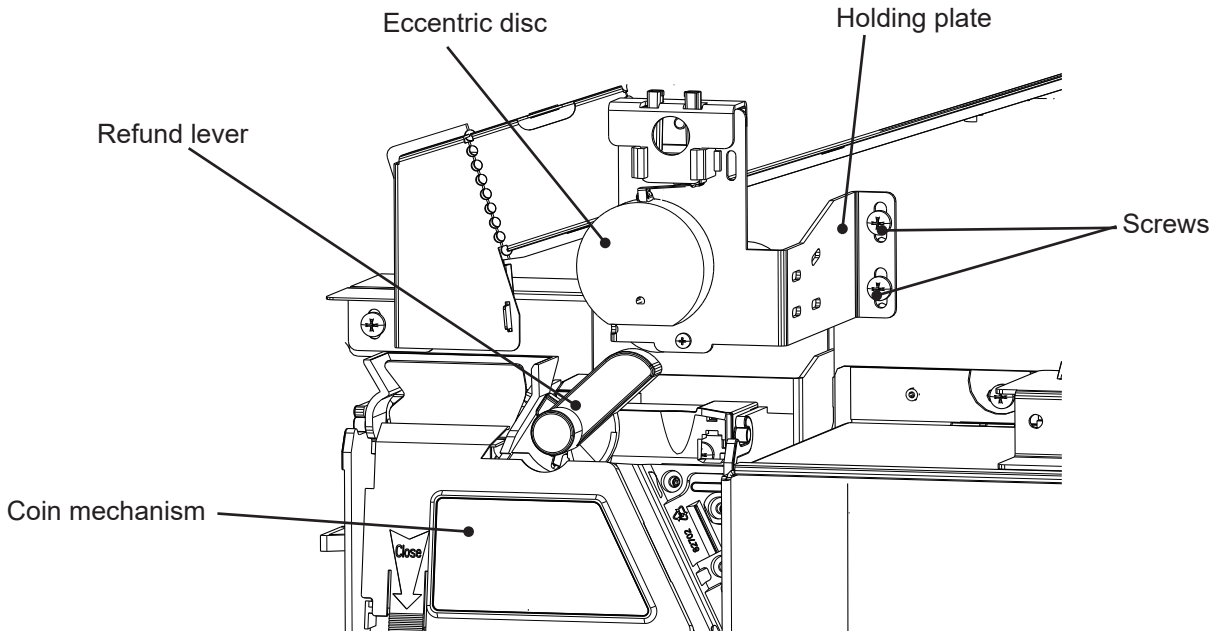
Plug in male and female connectors securely.

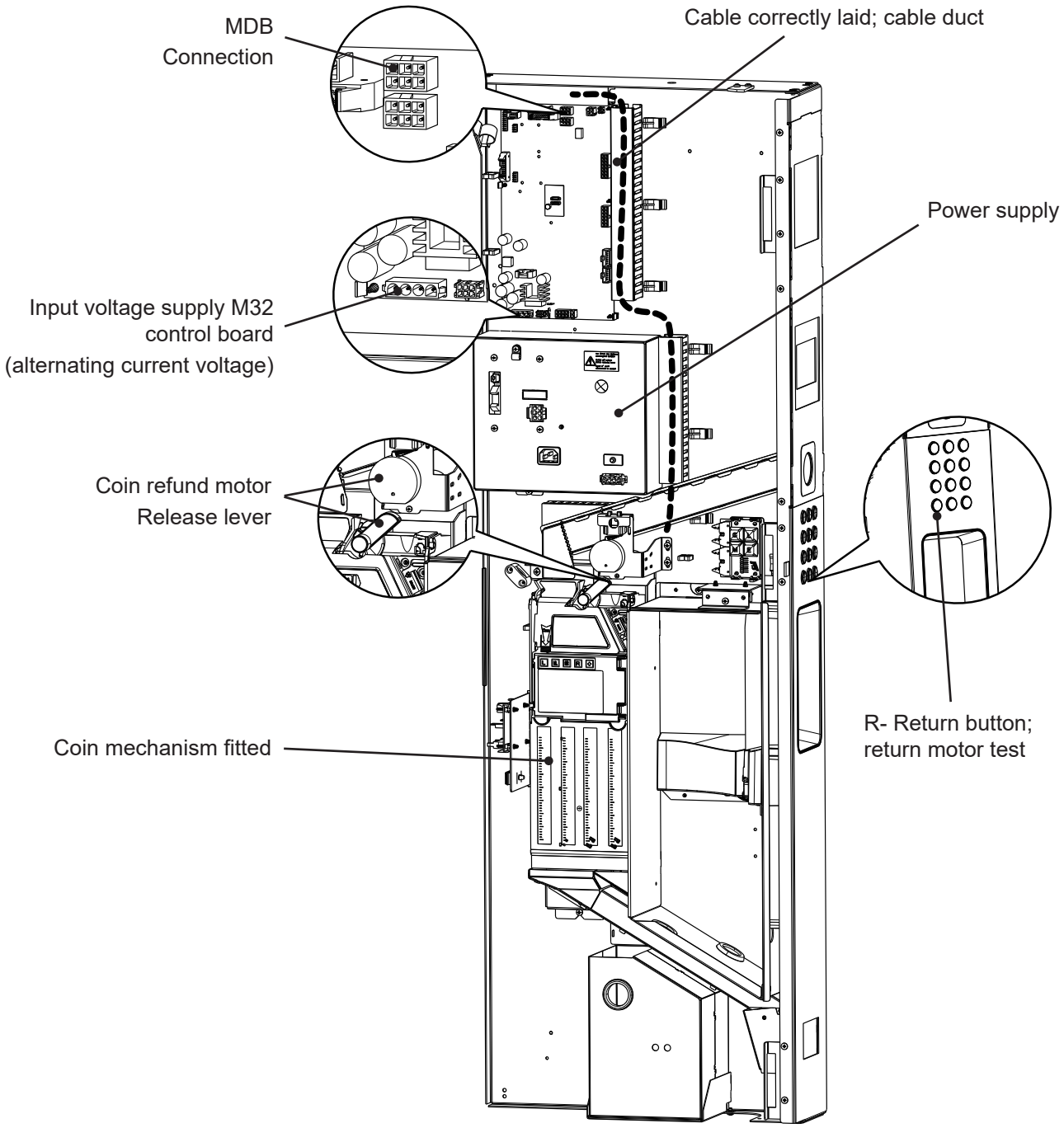
The coin mechanism connectors are plugged into the appropriate sockets on the control board, adapter or junction boxes. Pay attention to the contacts and ensure that cables are properly positioned.

4.5.4 Setting the software

1. *Access the menu [INSTALLING MODE] M7: [M] + [7] + [E]*
2. *Access [CREDIT SYSTEM] by pressing [M] x 1. Press [E] to enter.*
3. *Press [1] to set the required communications protocol.*
4. *Press [E] to enter.*
5. *Return to the main menu by pressing [M] + [L].*

✓ The protocol between the control unit and the coin mechanism is now set.





4.6 Filling the coin mechanism (optional)

On first-time filling approx. 10 coins should be inserted into each coin tube (sleeping coins). The number of coins required depends on the coin mechanism that is used and the settings in the [INSTALLING MODE] menu.

1. *Press [M] - [8] - [E]*
2. *Press [E] until 1 appears*
3. *Fill each tube with 10 coins.*
4. *Press [E]*

→ The coin mechanism counts the value of the coins inserted. Once the minimum quantity is reached, the control board is informed and the machine goes into vend mode.

Tip

When using a banknote reader the amount of coins in the coin mechanism must be checked and, if necessary, filled up so that there is always sufficient change.

4.7 Requirement for the products

CAUTION! Explosive and highly flammable products! Risk of explosion!
o highly flammable or explosive products may be filled into the vending machine.

- The vending machine may only be filled with glass bottles, PET bottles and cans.
- Products must comply with the “Requirements” table below.
- Products where a dimension does not meet the requirements can lead to malfunctions. Suitability also depends on the shape and stability of the product.
  You must therefore always check whether the desired product can be dispensed without any problems.
- In order to follow market trends and new products, Sielaff is constantly testing new packaging for suitability. If necessary, please contact Customer Service.

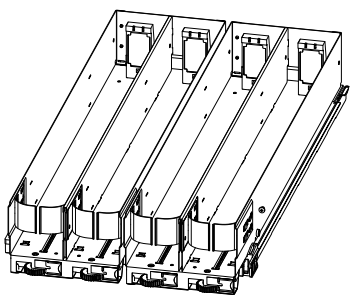
Requirements table Drawer width 73 mm	**Dimensions**
Height	max. 270 mm
Diameter / diagonal	min. 53 mm / max. 72 mm
Weight of a product	max. 905 g

Maximum product capacity						
	Robimat XL		**Robimat XM**		**Robimat XS**	
	Bottles	**Cans**	**Bottles**	**Cans**	**Bottles**	**Cans**
Products per drawer	9 (with Ø 66 mm)	9	9 (with Ø 66 mm)	9	9 (with Ø 66 mm)	9
Number of shelves	5 (with max. height of 240 mm)	8 (for 0.33L standard cans)	5 (with max. height of 240 mm)	8 (for 0.33L standard cans)	5 (with max. height of 240 mm)	8 (for 0.33L standard cans)
Number of selections per shelf	9	9	7	7	4* 5	4* 5
Maximum number of products	405	648	315	504	225	360

This table refers to standard cans with 0,33l (height 116 mm, 66 mm Ø).

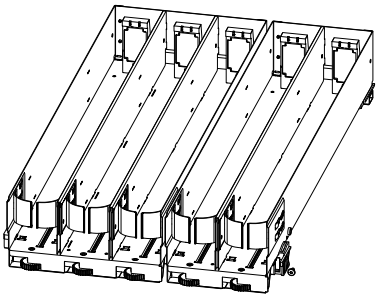
*** Applies only to Robimat XS:**

4 drawers on a shelf:
drawer width 74 mm



Double drawer:
Part no. 706.02.100.00

5 drawers on a shelf:
drawer width 66 mm



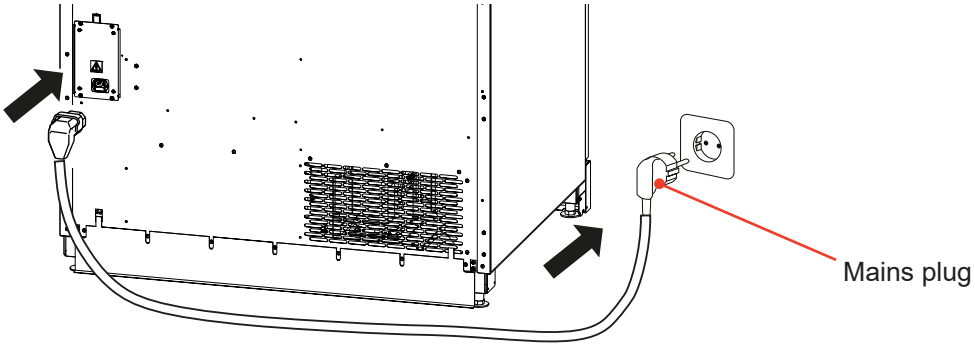
Triple drawer:
Part no. 708 03 100 00

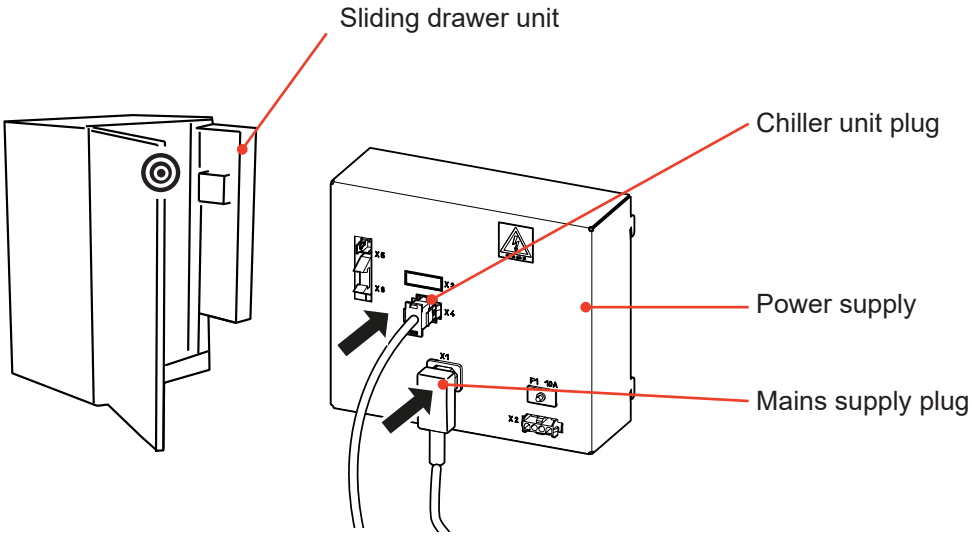
Double drawer:
Part no. 708 03 105 00

4.8 Electrical connection

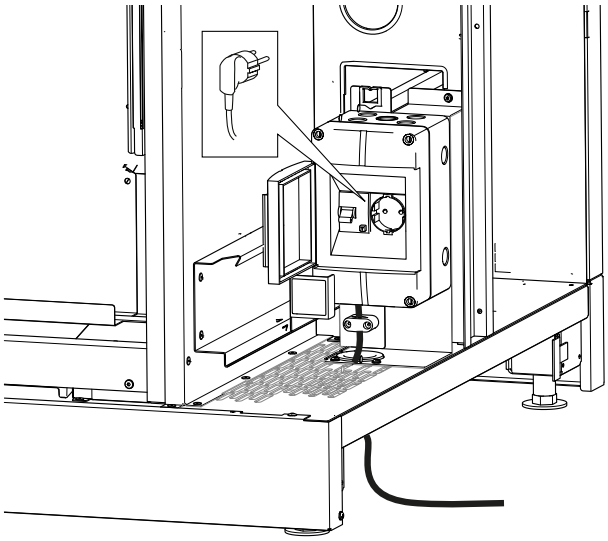
1. *Open the machine door (good ventilation).*
2. *Inserting the mains plug*
3. *Pull out the drawer*
4. *Insert the mains connection plug to the power supply unit*

→ The switch-off device requires approx. 2 minutes for the safety shutdown to be operational.





Fixed connection/terminal box (optional)



5. Daily use

5.1 Notes for the filler

- First of all check the general condition of the machine:
  - is there any external damage?
  - does the machine look clean and tidy?
  - if vandalised the machine must be put out of service immediately.
- In addition to the cleaning procedures maintenance work should also be carried out on the machine (refer to the Maintenance Schedule).

5.2 Opening the machine door

1. *Open the lock*
2. *Fold the locking flap upwards to 90°*
3. *Pull the locking flap*

✓ The door is now open

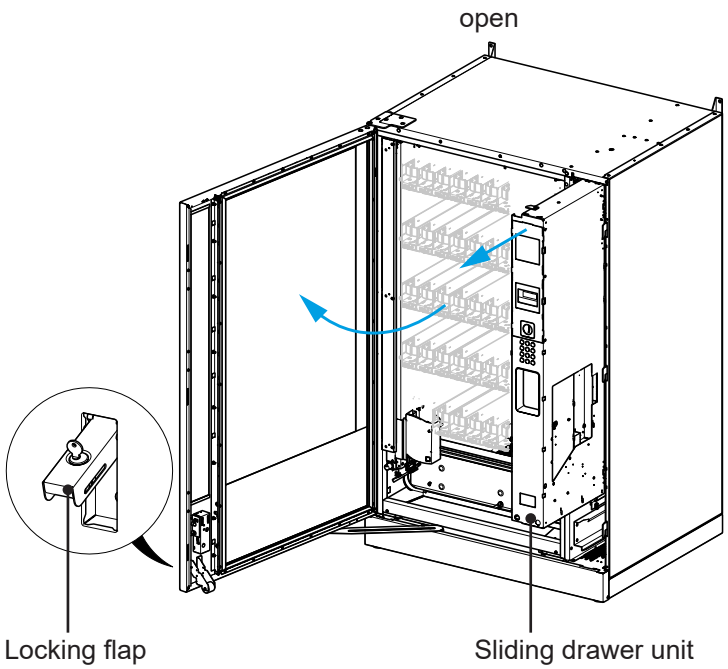
5.3 Opening the sliding drawer unit

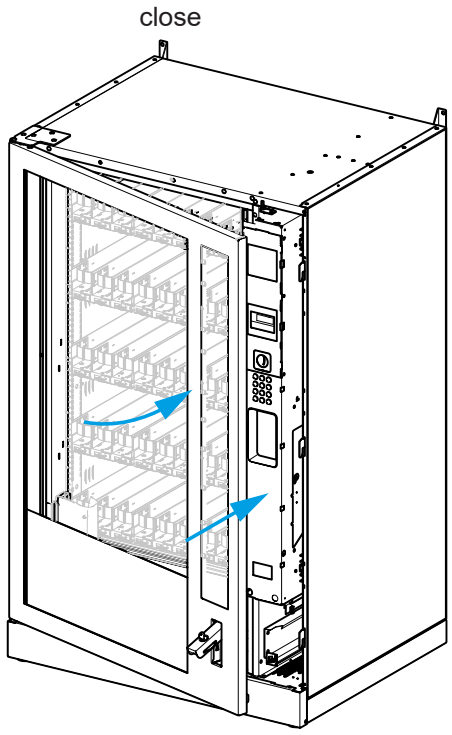
The sliding drawer unit can be easily moved along the telescopic rails.

1. *Pull the sliding drawer slowly out until it stops*
2. *The cash box is now accessible and can be emptied.*

5.4 Close the machine door

1. *Push in the sliding drawer unit until it stops*
2. *Close the machine door*
3. *Press the locking flap downwards*
4. *Close the lock*





Push the sliding drawer unit in first then close the door

5.5 Filling good drawers

Tip

The machine may only be filled by trained and qualified personnel.

Products can slip out of the drawers during refilling. Therefore, handle with care and always hold the frontmost product.

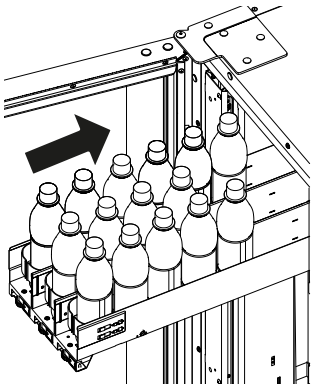
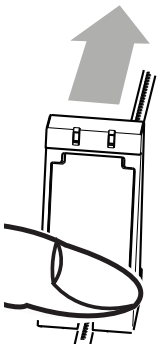
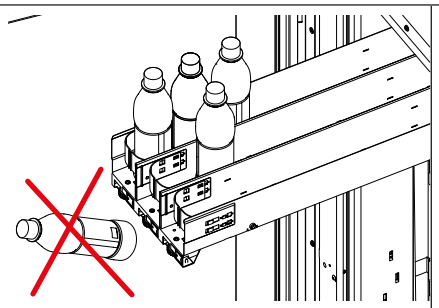
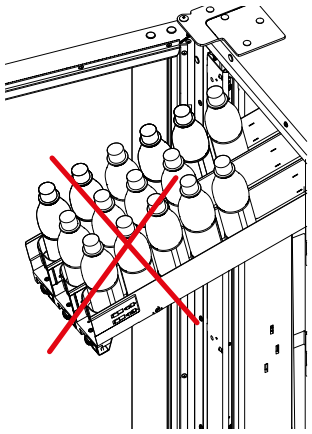
Procedure

1. *Grasp the bottom edge of the drawer, lift it slightly and pull it out slowly.*
2. *Push the product pushers backwards by hand*
3. *Position the products in the drawer*
4. *Push the drawer in completely (when in place a click can be heard)*

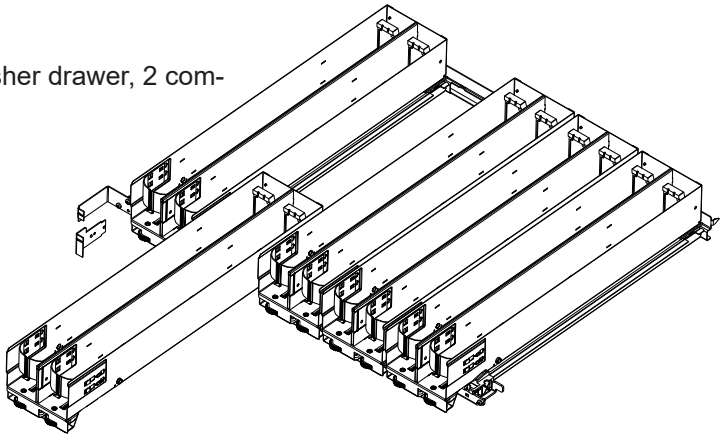
✓ The filling process has been completed.

Notes on filling

- To fill, pull out the drawer to its stop position.
- Always pull out, fill and replace only one drawer at any one time.
- Pull the drawer out slowly until it reaches stop position. This is to avoid products tilting and falling out.
- Push the product pushers right to the back by hand. Press only against the lower part of the product pusher!
- Fill the products loosely. Products must not be compacted.
- When filling is complete push the drawer slowly backwards until a click can be heard. Otherwise malfunctions may occur. The drawer is in correct vend position when it rests against the rear wall and is flush with the other drawers at the front.
- In order to avoid products falling out of the drawer while it is in a tilt position, hold the front product with one hand and fill with the other hand.

			
Filling	Push the product pusher backwards only at the bottom	Avoid products falling out!	The product retaining spring only acts as a support during the vend process. It cannot prevent products tilting!

Option: pusher drawer, 2 compartments



5.6 Service key

	**CAUTION!** Risk of injury! When the service key is inserted in the door contact switch there is a risk of injury from the lift system duringthe reference run if not enough distance is kept for safety. Distance must be kept until the basket is in its bottom left home position.

- For safety reasons only trained operators or service technicians should be allowed to insert the service key as electrical and mechanical components can be dangerous.
- Keep the service key outside the machine.

Using the service key

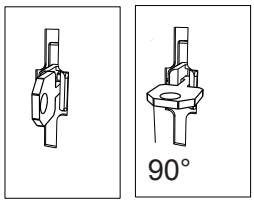
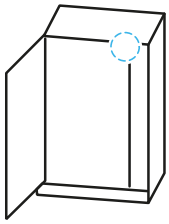
1. *Open the machine door, do not pull out the sliding drawer unit.*
2. *Insert the service key vertically into the door contact switch and turn it clockwise by 90°.*

→ The door contact switch is bypassed. After a short time a check routine starts and a reference run. The basket moves. For this reason the sliding drawer unit must remain inside the machine until the reference run has been completed.

Removing the service key

1. *Turn the service key 90° anti-clockwise.*
2. *Take out the service key.*

→ The machine is now shut down.

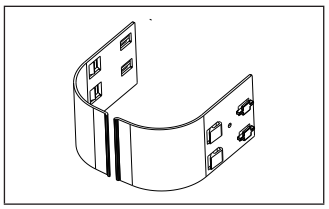
		
Service key	Insert service key	Door contact switch

5.7 Operating principle of the drawer/product retaining spring

- The products are placed one behind the other in each drawer. When a product is to be dispensed , the respective gear wheel at the front of the drawer must be powered by the drive in the product basket. The pusher is moved via a toothed belt. This guides all products in the drawer forward until the front product has pushed the two retaining springs aside to allow it to fall into the basket. The light barrier is activated. The basket with the product inside is then moved to delivery position.

Product retaining spring

- Retention: the first bottle is prevented from tipping over the edge.
- Accelerating/ Flipping: once the body of the bottle has bent the springs completely open, the bottle is moved by the springs flicking. The bottle is transported safely into the basket.



6. Cleaning and maintenance

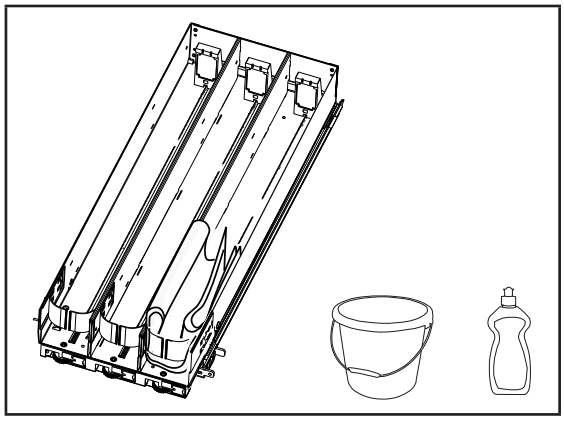
6.1 Cleaning list

In addition to the standard cleaning procedures maintenance work should also be carried out on the machine. An overview of the maintenance work to be carried out is to be found in the maintenance plan in the machine's technical manual. This can be obtained from the Download Portal via the Sielaff Homepage.

Part	Procedure	Frequency	Resources
Drawer	important: test, clean	if necessary	Detergent, cloth
Dust filter	important: test, clean	if necessary	Brush, compressed air, vacuum cleaner
External surfaces	check and clean	if necessary	Detergent, cloth
Flap in division panel	check and clean	if necessary	Detergent, cloth
Product basket	clean	if necessary	Detergent, cloth
Intermediate panel (High Security)	check and clean	if necessary	non-abrasive, pH-neutral cleaning agent, cloth
Vending machine floor	check and clean	if necessary	Detergent, cloth

6.2 Clean the drawers

- Dirty bottles or cans may lead to soiled (sticky dirt or glue residues) drawer floors. This means that more effort is required to move the products. It could also cause motor failure.
- Make sure that the surface area of the drawers is free from dirt and residue. Clean the surfaces with a lint-free, damp cloth, hot water and commercially available detergent. Then wipe the drawers dry.



NOTE

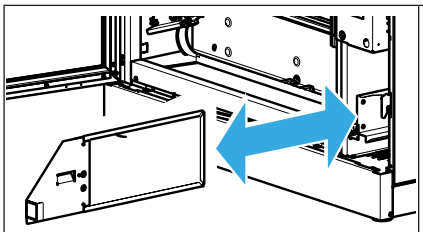
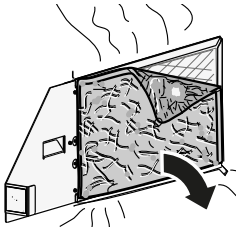
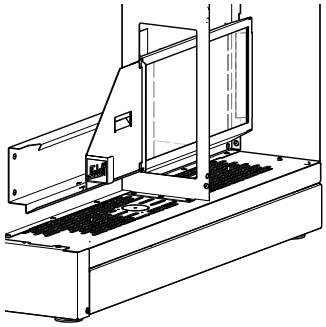
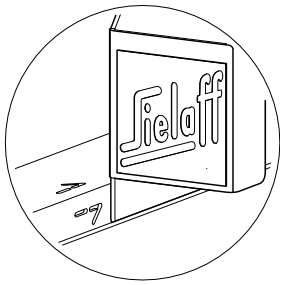
The condition of the drawer surface is important if the machine is to function correctly. Products (bottles) with contents containing sugar can also be sticky on the outside. If this drink residue adheres to the bottom of the bottle, the products (bottles) do not move forward.

6.3 Dust filter

NOTE
Risk of damage to the chiller unit Insufficient cleaning of the dust filter may cause the chiller unit to fail! For this reason make sure to check and clean the dust filter regularly.

1. *Open the machine door*
2. *Pull out the dust filter using the grip*
3. *Clean the dust filter using a brush, compressed air or a vacuum cleaner*
4. *Place the dust filter in the guide and push right to the back (see marker)*

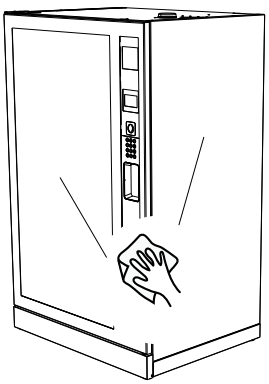
✓ The dust filter has been cleaned

			
Dust filter	Remove the fluff	Dust filter inserted (diagram excluded side wall)	Marker for correct positioning

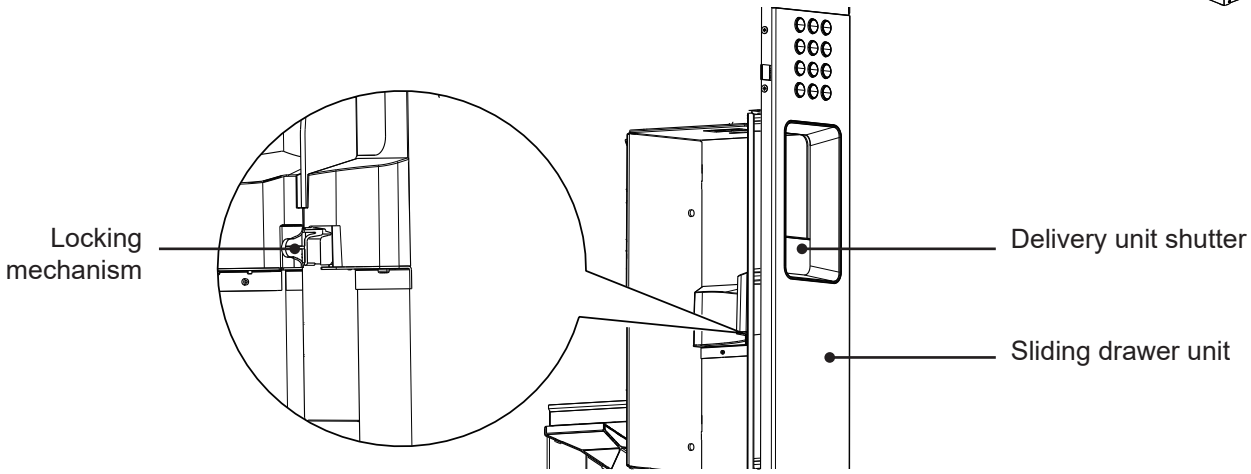
Additional information:

- There may be sharp edges inside the machine. Wear protective gloves when cleaning the machine.
- If a cashbag is used instead of a cashbox, the drawer must be pulled out. It is then possible to insert the dust filter without damaging the cashbag.
- Do not start the compressor more than 5 times in one hour. Do not reduce the 5 minute minimum period of idleness for the compressor! The vending machine is ready for vending every time the service key is inserted; the compressor can be heard running.

6.4 External surfaces



- Clean the outer surfaces regularly with a mild cleaning agent. The delivery drawer in the sliding drawer unit must be kept clean, as this is the place where the products are transferred to.
- Do not use aggressive or abrasive cleaning agents!
- The shutter of the delivery unit may be pushed down by hand. In order to do so the locking mechanism must be pressed backwards (unlocking mechanism).
  The shutter is closed automatically when the machine door is closed.



6.5 Flap in division panel

- A self-closing flap is installed for thermal separation between the cooled area and the surrounding area.
- The flap is pushed open by the product basket during product delivery and must close automatically afterwards.
- The all-round seal on the flap must be kept clean and must not be sticky.

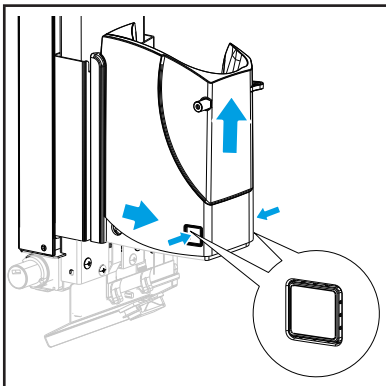
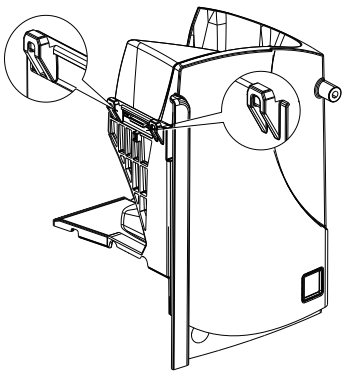
6.6 Product basket

The product basket can be removed for cleaning. It can be cleaned in the dishwasher at max. 65°C.

6.6.1 Removing the product basket

1. *Press both release buttons*
2. *Pull the basket slightly to the left*
3. *Lift the basket up and unhook*

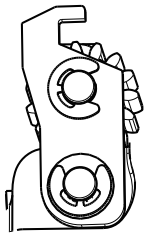
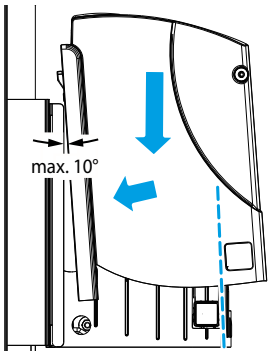
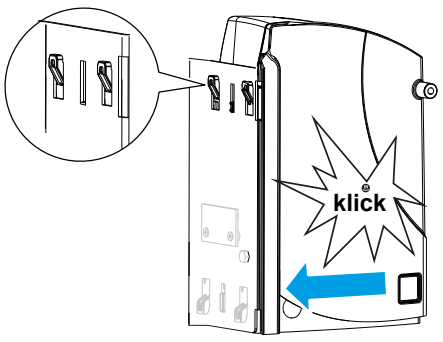
✓ The basket can be cleaned

	
Release button	Hooks

6.6.2 Installing the basket

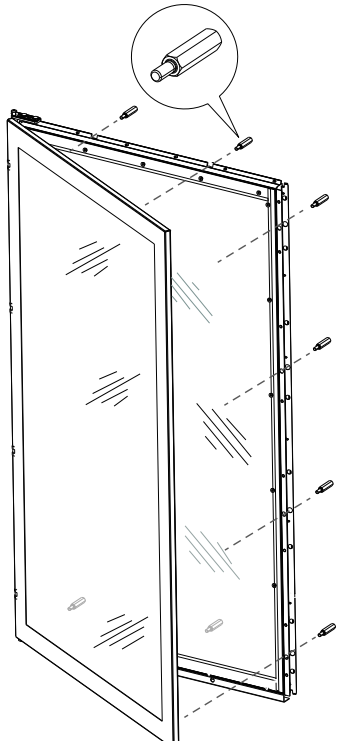
1. *Fold out the bearing for toothed wheel pendulum by hand.*
2. *Insert the basket into the holder at a slightly slanted position (approx. 10°).*
3. *Push the basket to the left so that the hooks lock correctly into the notch.*
4. *Swing the basket back in and push it upwards so that the release buttons can be heard clicking into place ("click").*

✓ The basket is back in place

		
Gear wheel assembly	Positioning the basket (dotted line: guide line)	The basket must be clipped in correctly

NOTE
Malfunctions will occur if the product basket has not clipped in correctly.

6.7 Cleaning the intermediate panel (High Security version only)



The high-security version features an impact protection. This includes an intermediate window, which can be cleaned if necessary.

NOTE

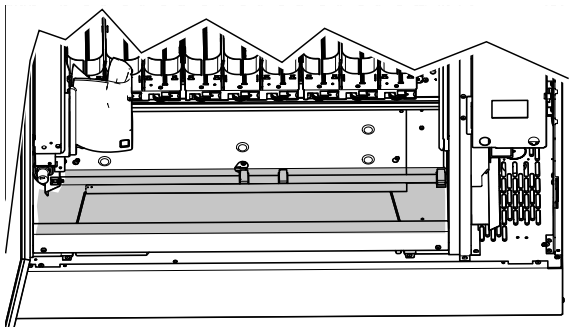
The use of abrasive, acidic or alkaline cleaning agents may cause stress cracks in the polycarbonate window.

1. *Remove 8 bolts*
2. *Open the polycarbonate window (impact protection)*
3. *Clean the polycarbonate window thoroughly with a non-abrasive, pH-neutral cleaning agent and hot water. The cleaned surfaces must be completely dry before the panel is closed!*
4. *Close the polycarbonate window (impact protection)*
5. *Insert 8 bolts*
6. *Check that the polycarbonate window (impact protection) fits correctly.*

✓ The intermediate window has been cleaned.

6.8 Vending machine floor

Clean the bottom of the machine with a lint-free, damp cloth and hot water with standard dishwashing detergent. The ribbon cable must be free of debris. Collision-free operation must be guaranteed.



Clean

7. Maintenance safety checks

The operator must carry out the following safety checks in order to operate the vending machine safely:

Subject	Annual safety checks	See
Gas sensor	Check for damage and clean (do not use compressed air)	Sect. 7.1
Shut-off device	Carry out a self-test to ensure that the cut-off relay is working correctly	Sect. 7.2
Gas sensor	Use test gas to ensure that the gas sensor is working correctly	Sect. 7.3

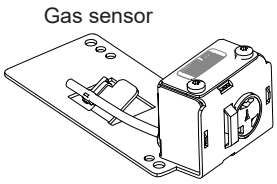
7.1 Checking and cleaning the gas sensor

Check the gas sensor for any damage.

Clean the gas inlet using only a brush.

NOTE

Never clean the gas sensor with compressed air. Compressed air damages the sensor.



7.2 Shut-off device - Activating a self-test

Requirements

- The machine is ready to use
- Yellow LED on the service board lights up

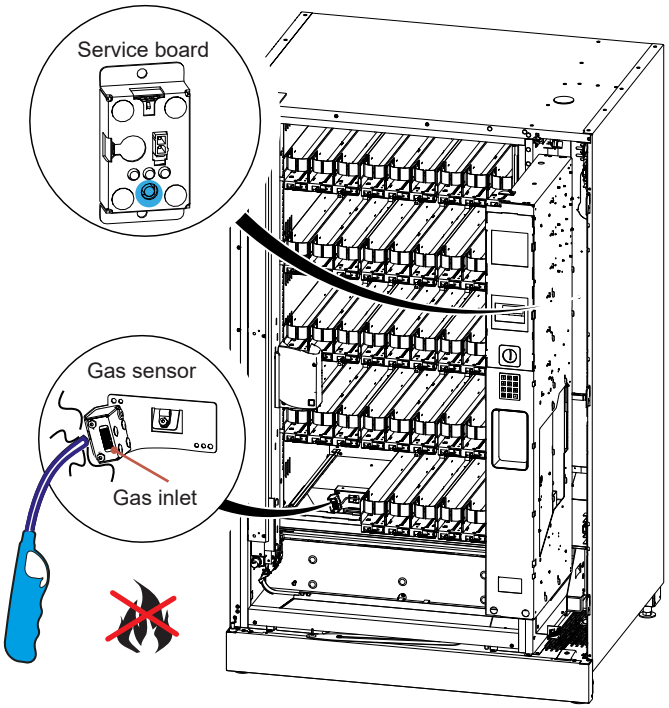
Procedure

1. *Press the button on the service board for approx. 2 seconds*

→ Green LED lights up briefly (self-test was successful)

→ Yellow LED lights up (everything OK)

→ Red LED lights up (indicates a fault, take vending machine out of operation, replace shut-off device)



7.3 Testing the sensor

Requirements

- The gas sensor must be accessible (gas inlet)
- Remove the drawer if necessary
- Standard stick lighter

Procedure

1. *Switch on the vending machine.*
2. *Ignite the stick lighter away from the vending machine (flame height 2 cm).*
3. ***Extinguish** the stick lighter flame while continuing to hold down the stick lighter actuator.*
4. *Hold the opening of the stick lighter in front of the gas inlet opening of the gas sensor for a maximum of 20 seconds.*
5. *Put the stick lighter away and wait a few seconds.*

→ Safety shut-off device disconnects the vending machine from the mains. Display, machine lighting etc. go out.

✓ Shut-off device working correctly

✓ Wait a while until the shut-off device automatically reactivates the power supply

Important:

- If the vending machine fails this test, the gas sensor must be replaced. The vending machine must be taken out of service.
- The vending machine may only be operated if the shut-off device is working correctly.

8. Software

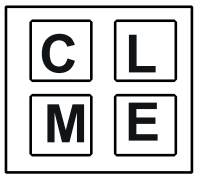
8.1 Service keypad and display

Service keypad

When the slide-out drawer unit is open four programming keys are accessible. They are identified by the letters [C], [L], [M] and [E]. The machine is programmed using these keys and the selection keypad.

The programming keys have the following functions:

Menu selection M0 to M9



Program-ming keys	Reference	Meaning
C	"clear"	Confirm error messages /delete data
L	-	Scroll backwards in the menu
M	"Menu"	Scroll forwards in the menu
E	"enter"	Confirm entry, move to next menu item

Navigation

Select menu

Values may be programed and changed using the menu selection, which appears by pressing [M]. The following information is displayed after pressing [M]:

Change setting

- [1] change the selection in the respective menu

Exit menu

- Press keys [L] and [M] at the same time
- Press refund button [R] (exits any menu)
- Not pressing a key; after approx. one minute the machine reverts automatically to vend mode.

8.2 Structure of the main menu

Menu	Display message	Security code	Function
M0	[CHECK]	-	Error display, Deletion of error messages
M1	PROGRAMMING MODE	B	Assign selling prices Entering product names for each selection key
M2	CHILLER UNIT	A	Electronic monitoring of the chiller unit Chilling temperature and times
M3	TEST VEND MODE	A	Checking the allocations Checking the vend process
M4	SHOW STATISTICS	A	Display sales statistics Deletion of short-term statistics
M5	SHOW FULL STATI-STICS	B	Display sales statistics Full statistics can only be deleted by the manufacturer
M6	PROG. TIME/LOCKS	B	Set time, date, inhibit times
M7	[INSTALLING MODE]	B	Setting country, currency, machine type, machine number, security codes, pre-selection times, credit system, vending mode, coin change parameters, machine options, service telephone number
M8	SERVICE MENU	B	Test of vending machine components Reading of vending machine parameters
M9	TUBE INVENTORY	-	Filling and emptying coin mechanisms
M10	Robimat		Perform a reference run, operational check of the components, align the positioning of the product basket

Tip

If inhibit codes A and B have been installed in the [INSTALLING MODE] menu, the menus specified are locked and can only be accessed once the corresponding code is entered.

See „8.10.7 Password request (Locking code)“ on page 43.

8.3 [CHECK] M0

Deleting errors	Current machine errors are displayed as text in the [CHECK] menu. An actual counter reading is displayed with each malfunction.
ERROR #001 CON. 4 BLOCKED	▪ Button E acknowledges the error messages. ▪ Button combination [C] + [E] deletes the error messages ▪ If several faults occur at the same time, the next message will be displayed once the previous error has been acknowledged. ▪ Press refund button [R] to revert to vend mode.

Display error history	
ERROR C#002 CREDIT SYSTEM ?	▪ Pressing [M] - [1] - [E] in sequence will display the error history. ▪ Press [E] to scroll through the error history. ▪ Press refund button [R] to revert to vend mode.

8.4 [PROGRAMMING MODE] M1

Price	
[PRICE CASH]	The normal cash selling price of the product.
[HAPPY HOUR]	To use this price the setting must be [on] in [INSTALLING MODE] - [CREDIT SYSTEM] - [HAPPY HOUR]. Various settings in [PROG.TIME/LOCKS] must be entered.
[PRICELISTS]	To use two price lists the setting must be [on] in [INSTALLING MODE] - [CARD SYSTEM] - [PRICE LIST]. Then [PRICE LIST 1] and [PRICE LIST 2] are stored. This function depends on the card reader being used. [PRICE LIST] and [HAPPY HOUR] cannot be used at the same time.

Setting prices	
PROGRAMMING MODE CASH PRICE ↓E SEL 10:£ 4.00 ↓new price fo ↓key 10 SEL 10:£ 2.00 ↓E	▪ Press [E] to call up the selections in succession ▪ Use [L] to go back to the previous selection ▪ Using numbers 0 to 9 enter the new price and press [E] to confirm.

Setting a standard price for all selections	The most frequently used price can quickly be programmed for all selections.
SET £ 45.00 CASH PRICE ↓new price +E SHELF ? 1-9 SURE ??	▪ When [CASH PRICE] appears press [M] ▪ Using numbers 0 to 9 enter the new price and press [E] to confirm ▪ Press [E] when the question [SURE ??] appears. All the shelves will be set. ▪ If a [1] is entered for question [SURE ??], shelf 1 will be set. [2] for shelf 2, etc.

Age verification	To use age verification [active] must be set in [INSTALLING MODE] - [MACHINE] - [AGE VERIFICATION]. This function depends on the document reader in use.
SEL 1 :£ 2.00 18+	▪ Using [R] access the options [OK+] [18+] [16+] ▪ [OK+] The product is sold without age verification. ▪ [18+] The product is sold after verifying a minimum age of 18 years. ▪ [16+] The product is sold after verifying a minimum age of 16 years.

Copying prices (from price list to price list)	A programed price list (e.g. cash price) can be copied to another price list. To do this [on] must be set in [INSTALLING MODE] - [CARD SYSTEM] - [PRICE LISTS] so that the two additional price lists are available.
[COPY PL 1] [TO PL 2]	▪ [PL 1] stands for [PRICE LIST 1] ▪ [PL 2] stands for [PRICE LIST 2] ▪ Press [E] to call up the selections in succession

8.5 [COOLING PROGR.] M2

Chiller unit		
[EL. COOLING?]	0 = no electrical chiller unit or chiller unit is controlled by a thermostat (on older machines) 1 = electrical cooling unit present (default)	
[AUTO SET?]	Standard settings are loaded by pressing [1]: Chiller temperature 8 °C and raised temperature 12 °C. Press [E] to enter.	
[TEMP. COOLING 1] [NORM.] [PLU]	▪ Using numbers 0 to 9 enter the required cooling temperature and press [E] to enter ▪ [PLU.] stands for raised temperature which is reached outside the cooling time (energy saving effect)	
[TEMP.COOLING 2]	Irrelevant in this case (only refers to a second chiller unit in a Sidepack)	
[COOLING] [FROM TO]	[MO] stands for Monday, [TU] for Tuesday etc. Press [1] to select the weekday. Press [E] to enter.	
[COOLING TIME] [FROM] [TO]	Using 0 to 9 enter the hours and minutes. Press [E] to enter.	
[TEMP1/ STAT/ DUR.]	The current chilled zone temperature is displayed	
	STAT stands for chiller unit status. An empty rectangle means the chiller unit is switched on. A filled-in rectangle means the chiller unit is switched off. □ : Chiller unit off ■ : Chiller unit on	TEMP1/COMP./DUR. 11°C ■ 43%
	DUR. = compressor run time since last switched on.	

8.6 [TEST VEND MODE] M3

- The selected product is dispensed free of charge and recorded in the statistics memory as a test vend.
- If the machine is filled, the selected product will be dispensed.
- If a test vend is performed with a money card, the amount will not be debited from the card.
- The sliding drawer unit must be pushed in.

TEST VEND MODE	
[PLEASE SELECT]	Using numbers 0 to 9 enter the required selection and press [E] to confirm.

8.7 [INDICAT. STATISTICS] M4

- In the menu [SHOW STATISTICS] the sales statistics are displayed. Specific product stock information can be accessed via the sales statistics.
- All non-zero values are displayed.
- The statistics are not actually deleted until the next vend.

Show Statistics	
[MACHINE NUMBER]	The machine number is displayed.
[CASH]	Cash is displayed.
[SALES]	The number of sales made is displayed.
[CASHBOX CONT.]	The cashbox content is displayed.
[TUBES CONT.]	The tubes content for the coin mechanism is displayed.
[TEST VEND MODE]	The number of test vends made is displayed.
[yes=1, no=0] [DELETE STATISTICS]	Press [1] to delete the short-term statistics. Press [E] to confirm.

8.8 [SHOW FULL STAT] M5

In the [SHOW FULL STAT] menu sales since the machine was first commissioned are displayed. Full statistics cannot be cleared.

8.9 [PROG./TIME LOCKS] M6

Locking times are flexible. The whole machine can be in operation or just individual selections. In total 4 locking times can be set.

PROG. TIME/LOCKS		
[TIME]	Use 0 to 9 to enter the time. Press [E] to enter.	
[DATE]	Use 0 to 9 to enter the date. Press [E] to enter.	
[off/on/time =0-2] [ILLUMINATION ?]	[off] the illumination is permanently switched off [on] the illumination is permanently switched on [time] the illumination is time-controlled	
[DESIGN ILLUMINATION] 0 R000 G000 B000 1 R000 G000 B255 x R000 G255 B000	A fixed RGB-colour value is assigned to the first digits 0 to 8 R - red, G - green, B - blue. 000 Colour value off, 255 colour value on. Press E to activate the arrow >, then by pressing 1 assign another fixed colour to the number. Press L to exit the menu. R255 G000 B000 is red R000 G255 B000 is green R000 G000 B255 is blue Colour no. 8 can only be programmed via EVA-DTS protocol. Colour change and lighting duration can be programmed.	
[AUTO SET?]	Press [1] to accept the standard settings.	
[yes=1, no=0] [LOCKING?]	Locking times not activated, machine is always operational Locking times activated, machine is locked during set times	
[AUTO SET?]	Press [1] to accept the standard settings.	
[LOCKING 4321] [MO ACTIV : 1111]	The 4 locking times are shown as activated in the diagram on the left [1]. To change; use numbers 0 and 1. A four-digit number must always be entered. A" 0" under locking time no. 4 means: Locking time not activated. Press [E] to move to the next weekday.	
[LOCKING zjJHF--S] [SELECTION10 11111111]	Here you have the option of linking selection key functions with off-times. An eight-digit number must be entered. 0 = locking time not activated; 1 = locking time activated.	
LOCKING tyYHF--L SEL.1 00100000	z interfaced with 1	Deactivates age verification for this selection during locking time 1
	z interfaced with 0	Age verification is not time-dependent
	j interfaced with 1	When the age verification function is enabled, this selection checks that the user is of the minimum age (normally 16 years)
	j interfaced with 0	When the age verification function is enabled, this selection checks that the user is of the higher age (normally 18 years)
	J interfaced with 1	Age verification is deactivated for this selection
	J interfaced with 0	Age verification is activated for this selection
	H interfaced with 1	During inhibit time, this selection is sold at Happy Hour Price.
	F interfaced with 1	During inhibit time this selection is set to free vend.
	S interfaced with 1	During inhibit time this selection is inhibited.

Refer also to Age Verification function:

[INSTALLING MODE] - [MACHINE] - [AGE VERIFICATION]

Also refer to happy Hour

[INSTALLING MODE] - [CREDIT SYSTEMS] - [HAPPY HOUR]

8.10 [INSTALLING MODE] M7

Machine parameters are programmed in the [INSTALLING MODE] menu. There are 6 sub-menus.

no.	Sub-menu	Note
1	[MACHINE]	Basic machine settings, which affect the dialogue with the user, e.g. language, age verification, security codes etc.
2	[CREDIT SYSTEM]	General settings for coin changers, card systems and banknote readers
3	[DOWNLOAD]	Configuration and statistical data readout
4	[COIN MECHANISM]	Relates to the coin mechanism settings
5	[CARDREADER]	Settings for payments systems
6	[BANKNOTES]	Refers to banknote settings

Navigating the sub-menus

- To select a sub-menu use the button [M]. Press [E] to open a sub-menu.
- The availability of individual functions in the sub-menus depends on the credit systems connected.
- The next selection field in the sub-menu can be selected by pressing [1]. Confirm your selection by pressing [E].

8.10.1 [> MACHINE]

[> MACHINE]	
[LANGUAGE]	Press [1] to change the language for text messages, press [E] to enter.
[CURRENCY]	Currency belonging to the country
[USE PROFILE]	It is determined here which profile should be used. [EXPERT], [USER 0], [USER 1]
[AGE VERIFICATION]	[none] The age verification function for the machine is deactivated. [activated] The age verification function for the machine is activated. For this purpose a document reader must be connected.
[VARIANT(1)]	[FS 40] (default) relates to Robimat XL, XM, XS.
[FREE VEND MODE(1)]	If the sale is only to be accessible to specific customers (e.g. hotel foyer), the free vend mode can be switched on. Before making a selection the four-digit [FREE VEND CODE] must be entered within the [FREE VEND DURAT.].
[EXT. SERIAL. 5.2]	Program machine data read out function. [HMI] or [readout]
[MACHINE NUMBER]	The machine can be given its own machine number
[MACHINE NUMBER]	The serial number is located on the machine identification plate.
[PCB-SERIAL NUMBER]	PCB = Printed Circuit Board (circuit board) Nothing can be changed.
[LOCKING CODE] [CODE A IS:]	Managing the access to menus / access rights; Enter password
[LOCKING CODE] [CODE B IS:]	
[TEL.NO. DC]	DC stands for Data Centre. The machine automatically dials this number. Telemetry connection is required for this.
[IN CASE OF DEF. TEL.]	If a fault occurs this number is shown to the customer in the display.
[SHOW TEMPERATURE]	With [yes] the cool zone temperature is shown in the display.
[TIME to DELIV.]	This is the time that the delivery pocket is open for the customer to remove the product.
ESCROW MOTOR (1)	[with] (default) if the customer presses the refund button, the refund motor turns and prevents a possible jam. [without] no motorised coin return available

[> MACHINE]	
[STORE EMPTY (1)]	[no] default [yes] By using this setting the control board records the number of the selection, from which no product could be vended. If a customer makes this selection again in order to purchase a product [SORRY SOLD OUT!] is displayed.
[PROMOTION RUN]	The promotion run is a marketing tool designed to attract attention. The lift armtravels with the basket without delivering a product. 0 = promotion run off 1 - 5 = a promotion run takes place every 5 minutes. 6 = 6 minutes 99 minutes maximum

8.10.2 [> CREDIT SYSTEM]

[> CREDIT SYSTEM]	
[CREDIT SYSTEM]	The communication protocol is entered here. [FREE VEND] - [BDV] - [EXECUTIVE] - [BDV dual] - [MDB] - [KEY SYSTEM] - [MDB+EXEC] - [MDB+BDV]
[CRED. CONFIG.]	Setting the configuration for the coin mechanism automatically or manually. Some of the following fields appear only if you enter [MAN.CONFIG]. Refer to coin mechanism instructions.
[VEND. MODE]	[NO CHANGE/SINGLE] After a coin has been inserted, at least one product must be purchased before coins are refunded. [CHANGE/SINGLE] Single vend: In the case of over-payment refunding is automatic following product selection. [CHANGE/MULTI] Refund: No product has to be purchased; coins are refunded if the process is aborted.
[ESCROW AUTOM.]	Refers to change given in coins [off] (default) [on] requirement: [CHANGE + MULTI] or [NO CHANGE + MULTI] is set in [VEND MODE]. Change is automatically dispensed (without pressing the refund button) as soon as the credit is lower than the amount set under [max. RETURN].
[HAPPY HOUR]	[off] (default) The function is deactivated. If you set [HAPPY HOUR] to [on], various selections can be sold at a different price during a specified time. The cash price and the Happy-Hour price are entered in the [PROGRAMMING MODE] menu [M1]. The Happy-Hour time and the selections it applies to are set in the [PROG. TIME/LOCKS] menu [M6].
[PRESEL.TIME]	During the time specified it is possible to make a selection before inserting coins. The selection remains until money is inserted. If 0 is set, money must first of all be inserted, then a selection made so that a vend can take place.

[> CREDIT SYSTEM]	
[CLEAR CREDIT]	180 s (default) This function enables an additional waiting time to be entered whilst non-returnable change is still displayed, before it is finally deleted. This might be required for contactless card payment systems, where the card is debited with the amount and it only turns out afterwards that the product requested cannot be dispensed. The time entered here gives the customer the option of reversing the amount by re-presenting the contactless card to the machine.
[SESSION TIMEOUT]	For some card payment systems [CREDIT SYSTEM] instead of [VMC] must be programmed here.
[CHANGE BLOCKED]	The maximum number of coins with which the highest sales price is to be achieved can be set here.
[EXEC VEND RETRY]	[STATUS CMDS] This value relates to the number of repeated sales enquiries if the EXEC-changer does not respond.
[CASH SALE]	[MDB 42] (default) The Cash Sale command operates in accordance with the MDB 4.2 version.
[CORRECT CHANGE]	[automatic] (default) [EXACT MONEY] is shown in the display if there are insufficient or no coins available. For cashless payment systems [EXACT MONEY] is inhibited by [never]

8.10.3 [> READOUT]

[> READOUT]	
[PROTOCOL]	[EVA-DTS] (default) Data transfer protocol between vending machine control board and payment system. [DEX/UCS] Protocol is required for a DEX/UCS interface.
[EVA-DTS VERSION]	[6.0 (5.x, 4.x)] (default) EVA-DTS Version setting.
[IRDA Adapter]	IRDA = Infrared-interface [IRDA] EVA-DTS Data is downloaded via the integrated IRDA-interface. [CABLE] This setting is necessary if, for example, a DEX/UCS interface can be connected to the display and EVA-DTS data is to be read out from it.
[EVA/DTS SEL.No.]	You can determine how the selection numbers are reported to MDB here and in EVA-DTS. [starts with 1] (default) The lowest selection number in the machine is 1. [starts with 10] The number being transmitted is the one shown as the selection number on the display.
[DDCMP BAUDRATE]	[AUTO] Infrared interface transmission speed.
[EXT. SERIAL 5.2]	Program machine data read out function. [HMI] Read out using HMI-protocol [READOUT] Read out using downloading devices.
[EXT.READOUT PROT]	[DDCMP] Readout using DDCMP Protocol [DEX/UCS] This protocol is only required if a display with DEX/UCS interface is connected. The machine must subsequently be restarted.
[CGW REPORTS]	[no] (default) Is only necessary if online modules compatible to "Verbose" are to be installed. Sielaff uses the FTL mode for data transfer which includes additional information to NAMA standard Verbose.
[INTERVAL DT. CONF(1)]	(only when using EVA-DTS 6.1 Standard) [automatic] Once the statistics have been downloaded, they are deleted when the next vend is made (as before). [do not delete] The statistics are not deleted after downloading. Deletion must be started via IR.
[INTERVAL EV. CTL.]	(only when using EVA-DTS 6.1 Standard) [automatic] The errors are deleted once they have been read out and when the next vend is made (as before). [do not delete] The errors are not deleted after downloading. Deletion must be started via IR.
[DTS data select]	Fields can be switched on and off individually. The definition of the fields is described in the EVA-DTS specification. Fields: PA2 - PA3 - PA4 - PA5 - PA6 - PA7 - PA8 [on] Transfer is enabled. [off] Transfer of corresponding fields (e.g. PA8) is inhibited.

8.10.4 [> COIN MECHANISM]

[> COIN MECHANISM]	
[TUBE FILL LEVEL]	[Coin mechanism] (default) Tube fill level is not counted by the control board, but by the coin mechanism. The tube level transmitted by the coin mechanism is what should be available for coin return. Please note that transmitting the tube level from the coin mechanism to the control board can take up to one minute.
[ALT. PAYOUT]	[on] The coin mechanism decides how the change is returned. For example, 20 cents can be returned as 2 x 0.10 € or 1 x 0.20 € or 4 x 0.05 €. [off] The machine control board determines how the change is returned. The number of coins dispensed is kept to a minimum.
[COIN 1 DIS.: GA] .... [COIN 16 dis.: GA] COIN 1 dis.: GE 0.05 0T:000	The coin can be disabled by linking keys 0 and 1. Its value (0.05 corresponds to 5 cents) and the number of coins in the tube or in the cashbox is displayed. Meaning of the letters: G - disabled, A - paid 0T - no coins in the tube 0C - no coins in the cashbox 00 The coin is always accepted. 10 The coin is generally not accepted. 01 The coin will not be accepted if [CORRECT CHANGE] is displayed.
[TOKEN 1 VALUE]	If the coin mechanism accepts tokens, you can program the values for up to three different tokens here.
[LIMIT COINS]	The minimum number of coins to the value shown that must remain in the coin mechanism is entered using the number keys. Using these settings the coin mechanism is filled or emptied in M9 [TUBE INVENT.] menu.
[CHANGE BLOCKED]	The maximum number of coins with which the highest sales price is to be achieved can be set here.
[CORRECT CHANGE]	[automatic] (default) [EXACT MONEY] is shown in the display if there are insufficient or no coins available. For cashless payment systems [EXACT MONEY] is inhibited by [never]

Tip

Menu options [CHANGE BLOCKED] AND [CORRECT CHANGE] are also in the [CREDIT SYSTEM] menu; they interact with each other.

8.10.5 [> CARD SYSTEM]

[> CARD SYSTEM]	
[ALWAYS IDLE]	For contactless card readers. [off] The card must be held against the contactless card reader at the same time as the product selection is being made. [on] Pre-selection of a product using contactless card readers is possible.
[PRICE LISTS]	This function depends on the card reader being used. [off] Price lists are disabled. [on] Two different prices for one selection can be entered here. The two prices are set in the [PROGRAMMING MODE] menu. In addition this function can be used for price lines in BDV/Executive. With this function the prices are stored in the coin mechanism and the price line corresponding to the selection must be programed on the control board.
[REVALUE]	Revalue = top up onto a card. This function depends on the card reader in use. [on] The amount inserted is credited onto the card. In this case the card must be inserted or held out before the money is inserted.
[MIXED PAYMENT]	[on] Mixed payment is possible (e.g. coins and card).
[MDB CARD 2]	[on] if a second card reader is connected.
[P.LIST/READER.]	[L1+L2 -> all] Both price lists are valid for card 1 and card 2. [L1->R1/L2 ->R] Price list 1 is valid for card 1, price list 2 is valid for card 2.
[MIXED PAYM. PRICE]	Only for [MIXED PAYM.] [cash price] The [CASH PRICE] entered in the [PROGRAMMING MODE] menu is used. [cashless PL] The price entered in the [PROGRAMMNG MODE] menu is used for the corresponding [PRICELIST 1] or [PRICELIST 2].
[MDB-comp.mode]	[standard] Most credit systems work in this mode. [b. practice] (best practice) Additional information is transmitted in this mode. It is required mainly for future applications. Some credit systems already work in this mode.
[REFUND FAILURE]	How the vending machine is to react if an error occurs during product delivery is programmed here. [CLEAR CREDIT] this is the standard setting. The credit is deleted. [USE AS CASH] The amount is topped up on a card or key when it is allowed to do so by the card reader and [REVALUE]is set to [on]. If no card reader is connected, the amount is converted into cash. The credit remains for the amount of time programmed in [CREDIT LOST] in sub-menu [CREDIT SYSTEM].
[MDB ITEM NUMBERS]	Defines how selection number data is transmitted in Vend Request and other MDB commands. [Hexadezimal] default. [BCD] Selection numbers are transmitted BCD-coded. Some card systems require this coding.
[CARD REMOVAL]	[before vend] The card can be removed before product delivery. [after vend] The card can only be removed after product delivery.
[CASH SALE]	MDB 42 (default) The Cash Sale command operates in accordance with the MDB 4.2 version.
[EVA/DTS SEL.No.]	You can determine how the selection numbers are reported to MDB here and in EVA-DTS. This setting has no effect on machines with selection numbers starting with 1. [starts with 1] (default) The lowest selection number in the machine is 1. [starts with 10] The number being transmitted is the one shown as the selection number on the display.

8.10.6 [> BANKNOTES]

[> BANKNOTES]	
[ESCROW]	Only with banknote readers: This function affects the method of refund if a vend fails. The banknote is held so that it can still be returned if necessary. [hold] If a vend fails the last banknote is returned. [stack] This means the banknote is stacked and the value is paid out in coins. Stack means that the cassette is stacked with notes.
[BANKNOTE 1 dis.:HG]	The banknote can be blocked by linking keys 0 and 1. Its value (5.00 corresponds to 5 Euro) and the number of notes is displayed. Meaning of the letters: [H] high security (high level of accuracy) [G] blocked 0T = no coins in the tube 0C = no coins in the cashbox [00] The banknote is always accepted. [10] The banknote is checked with a higher level of accuracy. [01] The banknote is not accepted.

8.10.7 Password request (Locking code)

- In order to avoid unauthorised programming the menus can be assigned a locking code. The locking codes are structured hierarchically.
- [CODE A] provides the lowest access level. It unlocks the [COOLING], [TEST VENDS] [SHOW STATISTICS] and [SHOW FULL STAT] menus. Code A is intended for the machine filler.
- [CODE B] unlocks the [PROGRAMMING MODE], [SHOW FULL STAT], [PROG.TIME/LOCKS], [INSTALLING MODE] and [SERVICE MODE] menus.
- If you enter [CODE B], even if [CODE A] is requested, all menus can be accessed. The security codes can be freely selected from 0 to 9999.
- If [CODE A] is entered, [CODE B] has to also be entered. Both codes can be the same.

SECURITY CODE CODE A IS: 0	Security code is set here i.e. programmed
CODE A ----	A menu locked using [CODE A] or [CODE B] requires the relevant code to be entered to obtain access. The digits are not displayed. After entering the code press [E] to confirm!

8.11 [SERVICE MODE] M8

- [SERVICE MODE] provides support for locating errors and machine maintenance.
- Various functions can be tested and the coin mechanism emptied.
- The service key must be inserted
- The so-called service numbers are identified in the table below.

How to proceed

1. *Press [M] [8] [E] in sequence*

→ [Serv.Number 0]

2. *Press [2] [1] [L] in succession to display the software version installed.*

→ The software version is shown in the display.

3. *Press keys [L] and [M] at the same time.*

→ This exits the menu

Service number	Display
101 - 103M	Empty individual coins from the tubes of a 3-tube coin mechanism; if there are still coins in the tubes these must be removed using the coin mechanism service keypad. The information about which coin is assigned to which tube is shown on the identification plate on the coin mechanism.
105 - 109M	remove single coins from the tubes of a 4- or 5-tube coin changer
111 - 113M	remove all coins from the tubes of a 3-tube coin changer
115 - 113M	empty all coins from the tubes of a 4- or 5-tube coin changer
201M	Checking the chiller unit; Do not carry out this test several times in succession, because the compressor will no longer start against the pressure build-up.
202M	Check heater
203M	Check illumination
204M	Check evaporator fan
1L	Processor voltage display
5L	Check temperature and temperature sensor If a temperature of 99°C is displayed, the sensor or the lead from the control board is faulty. The reason could be a short-circuit or break.
21L	Software version display
22L	Control board run-time display
24L	The compressor run time is displayed in hours and minutes
29L	Display shows password entered
91L	Display shows all active MDB-equipment
99M55M	Patch Menu
99M57M	All products are sold in accordance with age verification for the minimum age of 16 years. This function depends on the document reader in use.
99M58M	All products are sold in accordance with age verification for the minimum age of 18 years.
99M59M	All products are sold without age verification.
99M81M	Generates a data reset; CAUTION: Clear this manually caused error and re-program the control board.
99M91M	Restore to factory settings

8.12 [TUBE INVENTORY] M9

In the [TUBE INVENT.] menu the individual tubes in the coin mechanism can be filled in accordance with number of coins set in [LIMIT COINS]. In addition, the coin mechanism can be completely emptied.

Tubes to limit

1. *Press [M] [9] [E] in sequence*

→ [Tubes EUR] [FILL TO LIMIT]

2. *Insert coins until the relevant notification appears*

→ The coin mechanism is ready to use

✓ The coin mechanism has been filled.

Empty all tubes

1. *Press [M] [9] [E] in sequence*

→ [Tubes EUR] [FILL TO LIMIT]

2. *Press [M]*

→ [EMPTY ALL TUBES]

3. *Press [M]*

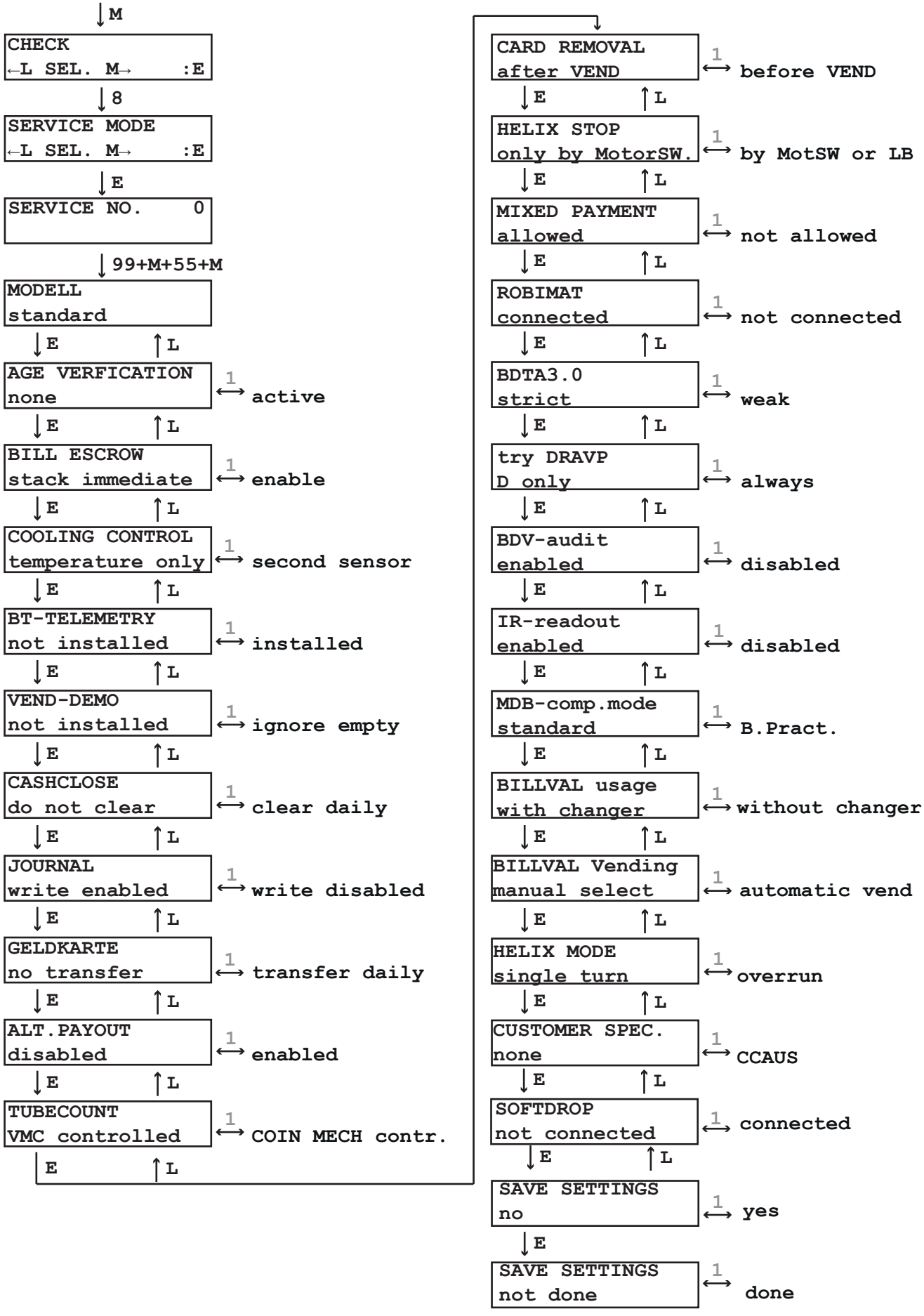
→ [EMPTY ALL TUBES/ARE YOU SURE?]

4. *Press [M]*

→ The coin mechanism dispenses all coins.

✓ The tubes are empty.

8.13 Patch Menu

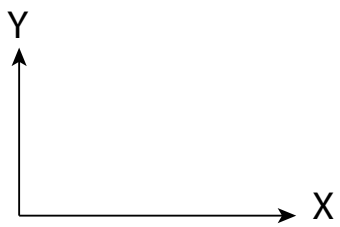


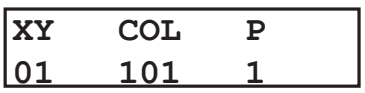
Menu text	Explanation	Possible settings
[MODEL]		standard
[AGE VERIFICATION]	see Menu M7/ [MACHINE]	none, active
[BILL ESCROW]	see Menu M7/ [BANKNOTES]	stack immediate, enabled
[COOLING CONTROL]	activates 2nd Temperature sensor in FK 178 GB	temperature only, second sensor
[BT-TELEMETRY]	Activates special handling of BT telemetry	not installed, installed
[VEND-DEMO]	Only for demonstration purposes! Do not activate!	not installed, ignore empty
[CASH CLOSE]	Activates deletion of statistics when cashing-up at midnight	do not clear, clear daily
[JOURNAL]	Deactivates journal writing with Executive and BDV	write enabled, write disabled
[CASH CARD]	Activates transmission of sales using pay cards when cashing-up at midnight	no transfer, transfer daily
[ALT. PAYOUT]	see Menu M7/ [COIN MECHANISM]	disabled, enabled
[TUBECOUNT]	see Menu M7/ [COIN MECHANISM]	VMC controlled, COIN MECH contr.
[CARD REMOVAL]	see Menu M7/ [COIN MECHANISM]	after VEND, before VEND
[HELIX STOP]	-	only by MotorSW, by MotSW or LB
[MIXED PAYMENT]	see Menu M7/ [CARD READER]	allowed, not allowed
[ROBIMAT]	Robimat lift control board is recognised automatically	not connected, connected
[BDTA3.0]	Display texts do not strictly follow BDTA 3.0 any longer	strict, weak
[try DRAVP]	Age verification is performed in accordance with DRAVP protocol.	D only, always
[BDV-audit]	Deactivates audit function in BDV	enabled, disabled
[IR-readout]	Deactivates IR data transmission	enabled, disabled
[MDB-comp.mode]	see Menu M7/ [CARD READER]	standard, b.Pract.
[BANKNOTE usage]	No function	
[BANKNOTE Vending]	No function	
[HELIX MODE]	No function	
[CUSTOMER SPEC.]	Activates customer-specific settings or customer-specific software behaviour	none, CCAUS
[SOFTDROP]	Activates / deactivates Softdrop	not connected, connected

8.14 [ROBIMAT] M10

[ROBIMAT] M10		
[ResetXY]	The lift and the product basket will be moved to the defined zero position / reference point bottom left. The lift and the basket will return to this position after each delivery.	
[AutoConfig]	The control board determines how many shelves have been fitted into the machine. This menu must be accessed if the shelves have been changed. After pressing button [E] the basket moves from the bottom upwards and ascertains the shelf positions via the light barrier and the brackets mounted. Finally the number of levels located must be confirmed by pressing button [9].	
[HW Machine]	In this menu the control board is advised of the machine type. ROBXL = Robimat XL; RobXM = Robimat XM; ROBXS = Robimat XS	
[ShowConfig]	This menu shows at which possible positioning holes a shelf is located and the size of the shelf. Refer to example: A shelf with size "S" on the highest position, i.e. 55 holes up from the bottom	S S S S L L L L 5537230901000000
[MasterOffset]	Offset is the difference to 0 caused by mechanical tolerances. X and Y directions can be set separately. The maximum displacement of the X and Y directions are influenced by scale due to the belt expanding (i.e. age, temperature, wear, length). If, for example, the toothed wheel of the product basket goes to the top product shelf (Y direction) 2 mm too low, Y Scale must be set to + 2.0 mm. Interim values are approximated.	
[Goto shelf]	Here the basket can be moved and stopped at every single drawer to collect a product, and then moved with the product back to the zero position. This is the menu where you can visually check the product transfer into the basket.	
[HardwareTest]	HWT LIGHT (LIGHT)The illumination for the machine can be switched on and off here. HWT INPUTS (INPUTS) The status of limit switches and light barriers is displayed by 0 and 1. If a limit switch is actuated manually, 0 will change to 1, which proves that it functions correctly.	

	Display	**Status for 0**	**Status for 1**
X	Limit switch top left (X -)	Lift arm not in zero position (left)	Lift arm in zero position
Y	Light barrier bracket zero position	Product basket not in zero position (down)	Product basket in zero position
C	Shutter in closed position (C - closed)	Shutter not closed	Shutter closed
O	Shutter in opened position (O - opened)	Shutter not opened	Shutter completely opened
L	Locking mechanism of the shutter (L - locked)	Locking mechanism opened, i. e. shutter can open	Locking mechanism engaged, i. e. the shutter cannot be opened
P	Light barrier in product basket (P - product basket)	No bottle or can in basket detected	Bottle or can in basket detected





9. Storage, taking out of operation, permanent shutdown and disposal

Storage

The vending machine should be stored in a clean and dry location. Use a suitable cover to protect it from dirt, humidity and damage.

Remove products and leave the vending machine door ajar to allow moisture to escape.

Decommissioning

The vending machine can be taken out of operation temporarily.

- Remove the mains plug from the socket.
- Remove the products.
- Clean the drawers
- Leave the vending machine door ajar
- For details of how to put the machine back into operation, see Putting into operation.

Permanent shutdown

When the vending machine has reached the end of its service life, it is shut down permanently:

- If necessary, delete personal data from the machine.
- Remove the mains plug from the socket.
- Remove the mains cable.
- Remove and dispose of the batteries correctly.

Disposal

For correct disposal of the vending machine please contact our Customer Service on
+49 9825 - 18 31 5102.

You can send the vending machine to the manufacturer (Herrieden headquarters, Germany) at your own expense. The manufacturer will ensure that it is disposed of correctly.

If you so wish, you can ask the manufacturer to provide details of appropriate waste management companies so that you can arrange its disposal yourself.

This symbol means that the marked product must not be disposed of together with household waste at the end of its life. Instead, it must be separated and taken to a collection point for the relevant type of waste. Please be aware that the details of the disposal procedure may differ in your country due to the regulations in force there.

10. Index

11. Maintenance schedule

To keep unexpected machine down-time to as low a level as possible, we recommend that the following maintenance schedule is adhered to. Depending on the environmental conditions on site it may be necessary to adapt the maintenance intervals.

Every 30,000 vends - or every 12 months

Housing, machine door

OK	Component	Resources	Action/ procedure
	Safe machine position		Check
	Machine exterior	Care and cleaning products	Clean
	Machine door closes properly		Check
	Insulating glass panel	Glass cleaner	Clean
	Coach bolts at top and bottom of machine door	998 90 023 00	Lubricate
	Locking hook	998 90 023 00	Lubricate
	Locking bar	998 90 023 00	Lubricate
	Hinge pin, locking bolts	998 90 023 00	Lubricate
	Lock	According to manufacturer's instructions	Lubricate
	All around door seal		Check clean, maintain if necessary
	Product illumination		Check
	Flap for the division wall: Torsion spring, seal, locking function		Check
	LED functioning		Check
	Folding mechanism, light strip left		Check
	Cable routing top left		Check
	Terminal box (optional) Test key T on the FI-circuit breaker	Test key T on the FI-circuit breaker	Press

Drawer

OK	Component	Resources	Action/ procedure
	Legibility of the price/selection labels		Check
	Inside the drawer	Rinsing water	Clean
	Drawer locking function		Check
	Product pusher	movable with even force	Check
	Slider/slide block engaged		Check
	Position of the belt in the pusher		Check
	Positioning of belt deflector at the back		Check
	Toothed belt without damage		Check
	Front drive wheel		Check
	Hook-in position for pendulum hook		Check
	Product retaining spring	Correctly snapped in; no damage?	Check

Payment system

OK	Component	Resources	Action/ procedure
	Coin mechanism (optional)		According to manufacturer's instructions
	Card reader (optional)		According to manufacturer's instructions
	Banknote reader (optional)		According to manufacturer's instructions

Sliding drawer unit

OK	Component	Resources	Action/ procedure
	Vending machine control board M32: Backup battery minimum 2.8V	Voltmeter	Check
	Coin chutes	Rinsing water	Clean
	Selection keypad, external		Clean
	Display		Clean
	Coin return tray		Clean
	Coin return motor - working	Refund button [R]	Check
	Product collection unit, internal area		Clean
	Smooth operation of locking slide including spring		Check
	Delivery unit flap	Consistent motorised travel (hand operated)	Check
	Lifting capacity at least 250 g	e. g. 0.25l can	Check
	Sliding clutch function	e. g. 0.25l can	Check

Lift System

OK	Component	Resources	Action/ procedure
	Horizontal linear rail, top	998 90 023 00	Clean, lubricate
	Horizontal lower guide rail	998 90 023 00	Clean, lubricate
	Damage to horizontal toothed belt		Check
	Damage to vertical toothed belt		Check
	Deflection rollers belt drives (7x)		Check
	Belt tensions: horizontal drive: Measurement point: upper centre; vertical rail far left. 1N with 15 mm stretch or 20 Hz	Newton meter	Check
	Vertical drive: Measurement point in centre, basket right at the bottom. 1N with 15 mm stretch or 15 Hz	Newton meter	Check
	Displacement force: Vertical rail left/ right: max. 15 N Basket upwards: max. 9 N Basket downwards: max. 6 N	Newton meter	Check
	Movable lower ribbon cable loop: no kinks / damage ?		Check
	Fork light barrier for height recognition + Y-reference	Brush, air	Clean
	Micro-switch for X reference		Check

Product basket

OK	Component	Resources	Action/ procedure
	Upper part of basket	Rinsing water	Clean
	Light grid	Brush, air, flashing mode in 5 seconds intervals	Clean, check
	Damage on drive belt		Check
	Damage to gear wheel pendulum		Check
	Pendulum gear wheel assembly	Berulub FR 43; 998 90 064 00	Check, lubricate
	Uniform power transmission when the pendulum is swung to and fro		Check
	Damage to pendulum hook		Check
	Bearing for pendulum hook	Microlube GL 261; 998 90 037 01	Check, lubricate
	Gear motor, upper shaft bearing	Microlube GL 261; 998 90 037 01	Check, lubricate

Chiller unit

OK	Component	Resources	Action/ procedure
	Dust filter	Brush, compressed air	Clean
	Compressor	Brush, compressed air	Clean
	Condenser	Brush, compressed air	Clean
	Base plate ventilation slots		Clean
	Connecting gaskets, front, rear + left, on the right side of the housing	Vaseline, rubber treatment	Check, clean, lubricate
	Plugs and connectors		Check
	Fan	Brush, compressed air	Clean
	Gas sensor (no visible damage)		Check
	Gas inlet on gas sensor: Dust, dirt, moisture deposits	Brush, cloth	Clean
	Initiate self test		Check
	Test gas sensor using test gas	Test gas	Check

Final check

OK	Component	Resources	Action/ procedure
	Drive positions for selections 10, 18, 30, 38, 50, 58	X-direction: Toothed wheel for pendulum drive aligned with toothed wheel of drawer Y-direction: Pendulum hook catches in the centre of hook-in position on the drawer	Check

If required every six months

OK	Component	Resources	Action/ procedure
	Electrical re-testing in accordance with VDE 0701		Carry out

EU/EC Declaration of Conformity for Machines

Sielaff GmbH & Co. KG
Automatenbau Herrieden
Münchener Str. 20
D-91567 Herrieden

We, the manufacturer, hereby confirm that the vending machine type specified below complies to the EC directive for machinery and the EU directive to electromagnetic compatibility in its design and manufacture relating to health and safety requirements as well as in conformity on the ecodesign requirements for energy-related products and on restriction of the use of certain hazardous substances in electrical and electronic equipment.

Any modification without our prior written consent to the machine specified herein, will automatically invalidate this Declaration.

Description: Glas front vendor
Machine Type: GF ...

Aufkleber für Seriennummer

Aufkleber für Typenschild

EU/EC directives applicable:

EC machinery directive: 2006/42/EC
The following standards also apply:
EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A14:2019 + A2:2019

EU directive to electromagnetic compatibility: 2014/30/EU
The following standards also apply:
EN 55011:2016 + A1:2017 + A11:2020
EN 55014-1:2017 + A11:2020
EN 55014-2:2015
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 62233:2008

EC directive ecodesign: 2009/125/EC

EU directive RoHS: 2011/65/EU

The objectives of the low voltage directive 2014/35/EU will be fulfilled in accordance with Appendix I, no. 1.5.1 of machine directive 2006/42/EC.

Authorised representative responsible for the documentation:
Mr. Dipl.-Ing. Manfred Murr, Head of Development, Sielaff GmbH & Co. KG, Münchener Str. 20, D-91567 Herrieden.

Herrieden, 02.01.2024			SIELAFF GMBH & CO. KG AUTOMATENBAU Postfach 20 91565 Herrieden Münchener Straße 20 91567 Herrieden ☎ 0 98 25 / 18-0 Fax 0 98 25 / 1 81 55
Place, Date	Mr. Robert Zahn Managing Director	Mr. Dipl.-Ing. Manfred Murr Head of Development	Company stamp

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