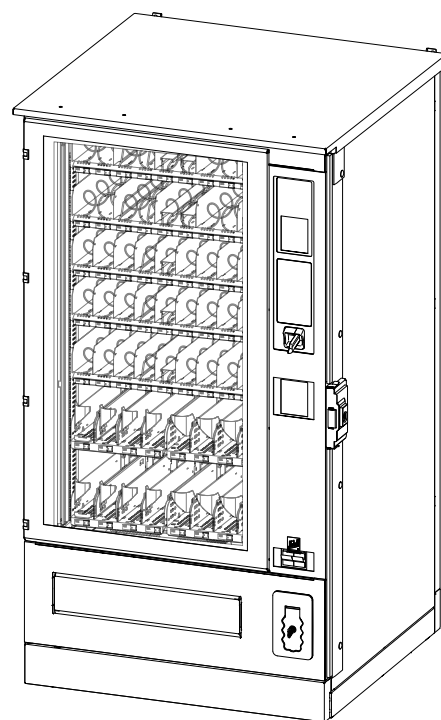
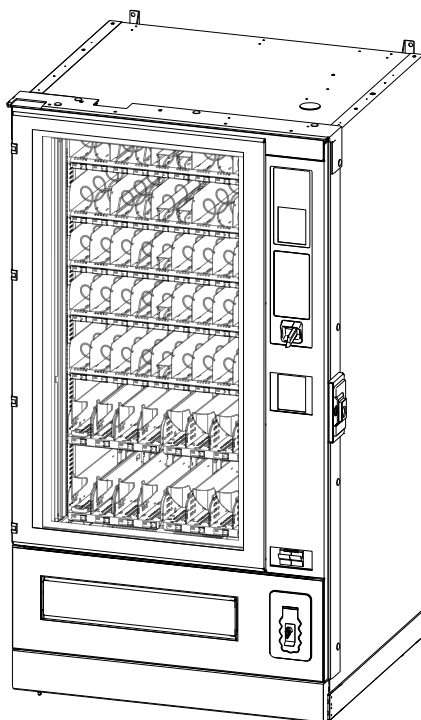
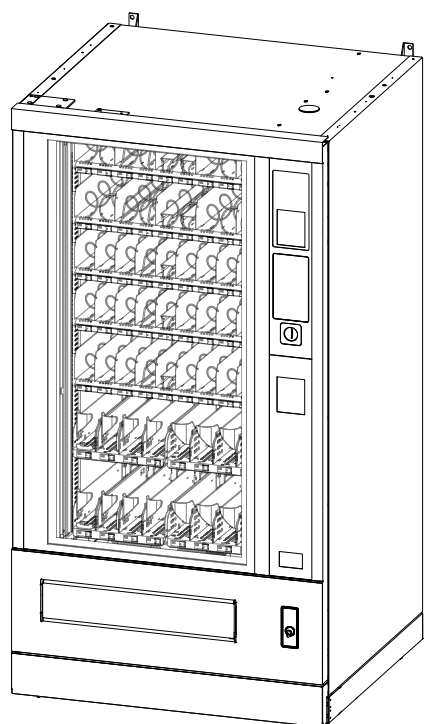




Technical Manual

SÜ SiLine



en

30/04/2025

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1. General

Versions

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

This manual applies to the following versions:

Type designation	Note	Internal part no.
SÜ SiLine S RB04	Small, RAL trim, type 04	3430000024
SÜ SiLine Lift S RB04	Small, RAL trim, type 04, lift	3430000034
SÜ SiLine S RP04	Small, RAL - Public, type 04	3430000064
SÜ SiLine Lift S RP04	Small, RAL - Public, type 04, Lift	3430000074
SÜ SiLine M RB04	Medium, RAL trim, type 04	3440000024
SÜ SiLine Lift M RB04	Medium, RAL trim, type 04, lift	3440000034
SÜ SiLine M RP04	Medium, RAL - Public, type 04	3440000064
SÜ SiLine Lift M RP04	Medium, RAL - Public, type 04, lift	3440000074
SÜ SiLine M RO04	Medium, RAL - Outdoor, type 04	3440000084
SÜ SiLine Lift M RO04	Medium, RAL - Outdoor, type 04, Lift	3440000094
SÜ SiLine S AD04	Small, AD	3437000024
SÜ SiLine S Lift AD04	Small, Lift, AD	3437000034
SÜ SiLine M AD04	Medium AD	3447000024
SÜ SiLine Lift M AD04	Medium, Lift, AD	3447000034

S -Small (780 mm wide)

M - Medium (990 mm wide)

RB - RAL trim operating panel

RP - RAL - Public operating panel

AD - Dallmayr

1.1 Identification

	1 Manufacturer 2 Type designation 3 Connection data
--	---

	If refrigeration unit with R-290 is installed: Symbol for "Warning: flammable substances"
--	--

1.2 Who this document is intended for

This manual is intended to be used by trained specialists and service technicians. It is assumed that the target group has been trained in working on the vending machine.

1.3 Safety information

- Before carrying out any repairs on the vending machine, the mains plug must always be disconnected from the mains power supply. Position the mains plug where it can be seen during the work to ensure that no one plugs it back in accidentally.
- There may be sharp edges and corners inside the vending machine. Wear protective gloves when carrying out maintenance work.
- If the connection cable is damaged, it may only be replaced by the manufacturer, its customer service department or a similarly qualified person in order to avoid hazards.
- Use original spare parts only.
- Only products approved by SIELAFF may be used.
- Any modification or conversion of the vending machine is prohibited. SIELAFF does not accept any responsibility for any defect claims caused by failing to follow the aforementioned instructions.

1.4 Explanation of signs and symbols

The vending machine has been manufactured in line with current technological standards. Nevertheless, even the most expertly designed vending 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 vending machine.

**NOTE**

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

**TIP**

Indicates information that will make it easier to handle and use the vending machine.

The following danger symbols are also 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.

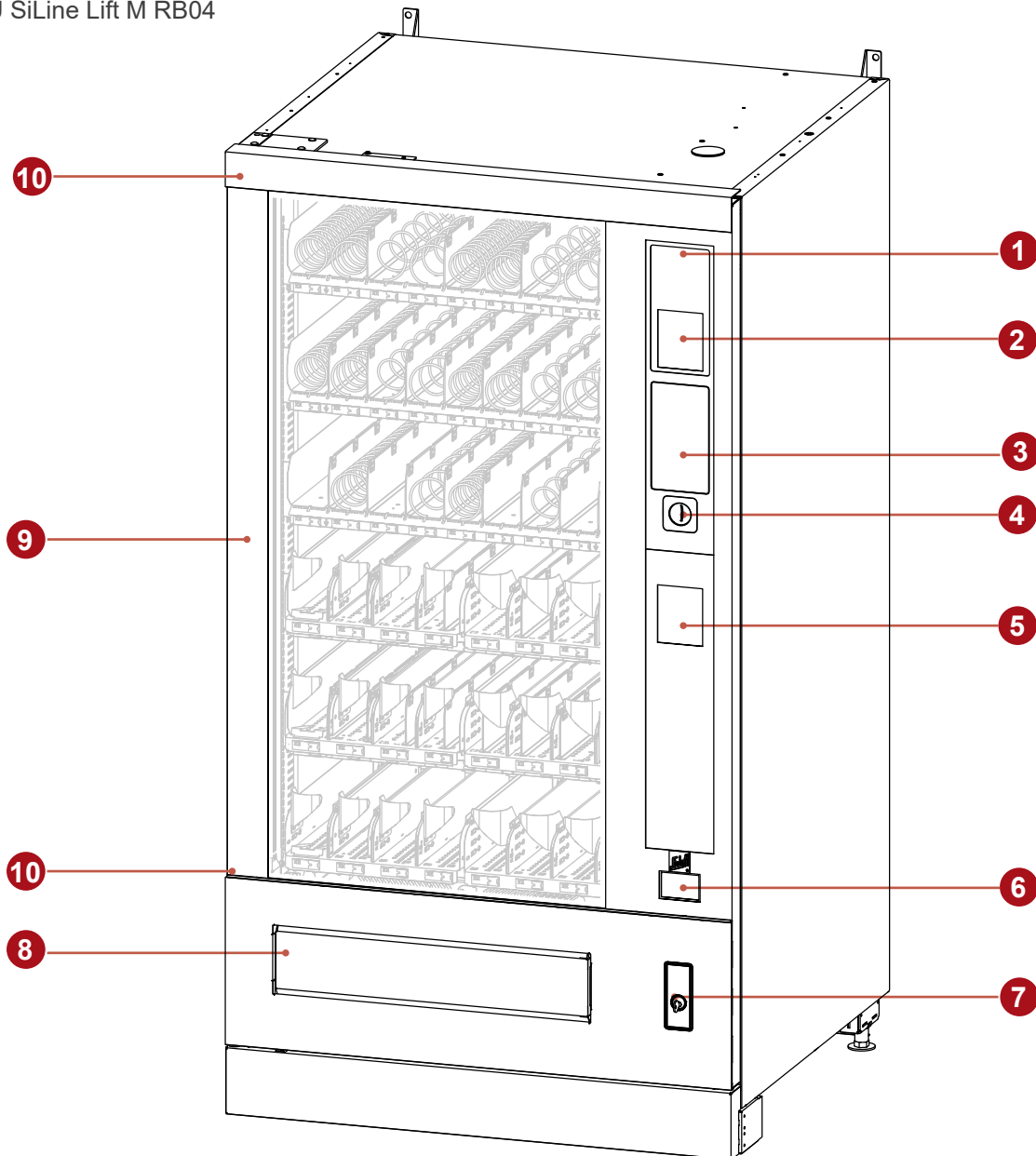
**DANGER! Flammable substances!**

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.

2. Vending machine illustrations

External view

Figure
SÜ SiLine Lift M RB04



1 Telescopic door

2 EVA cutout

3 Touchscreen

4 Coin slot

5 EVA cutout

6 Coin return

7 Locking flap

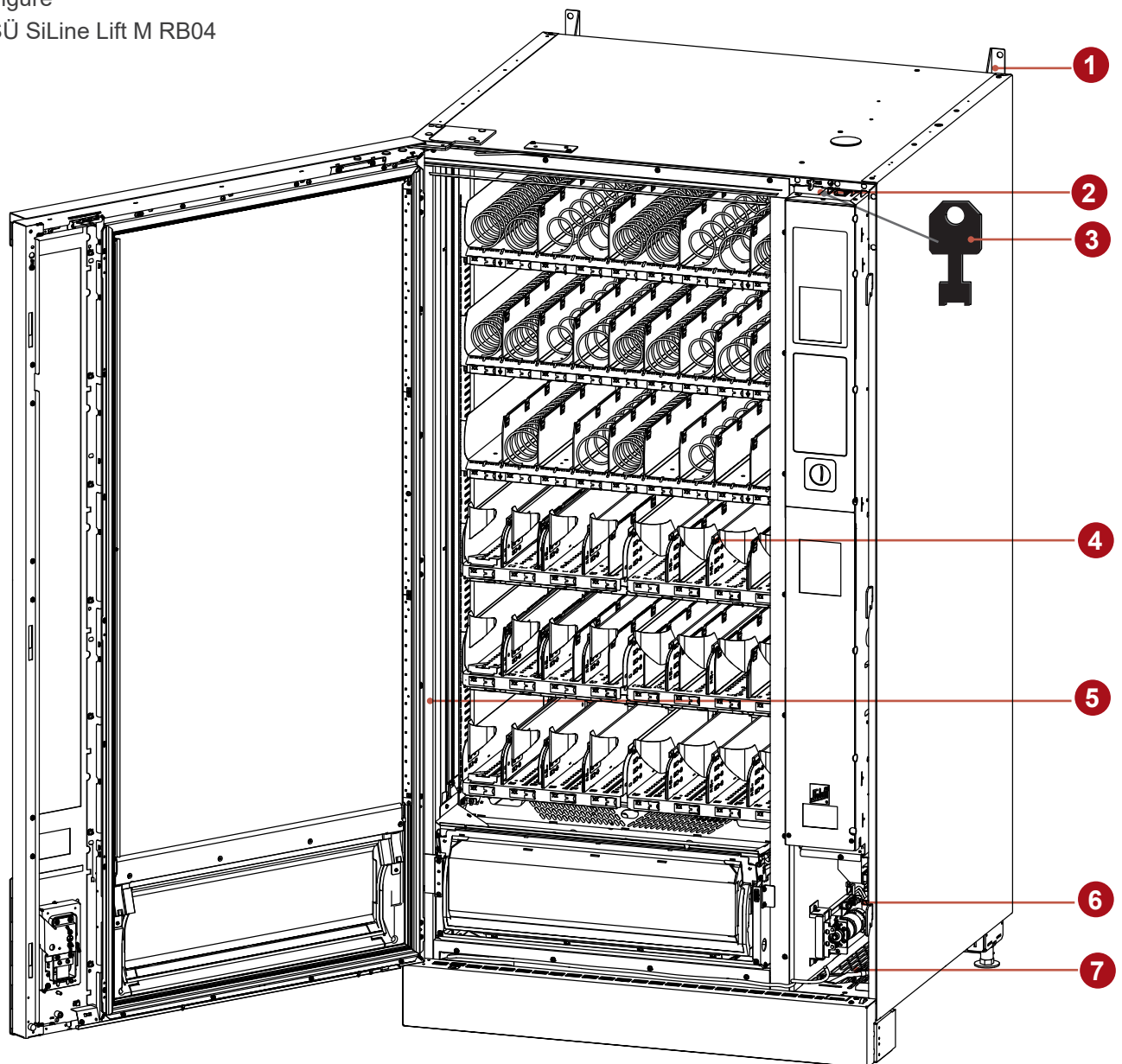
8 Product output

9 Machine door

10 Design lighting

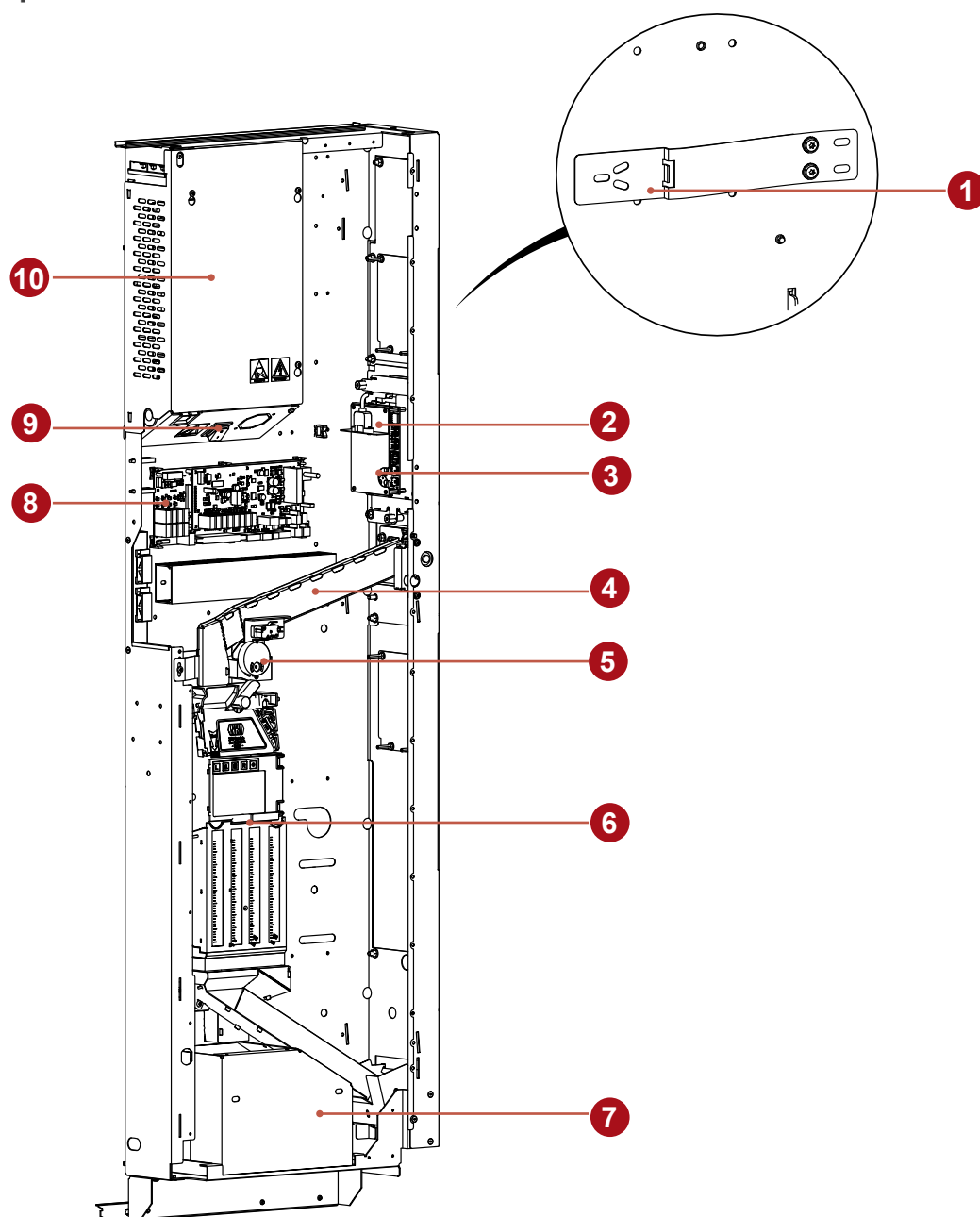
Interior view

Figure
SÜ SiLine Lift M RB04



- | | |
|-----------------------|--------------------------------|
| 1 Wall fixing | 5 Product LED lighting |
| 2 Door contact switch | 6 Lint filter, removable |
| 3 Service key | 7 Refrigeration unit air inlet |
| 4 Pusher drawer | |

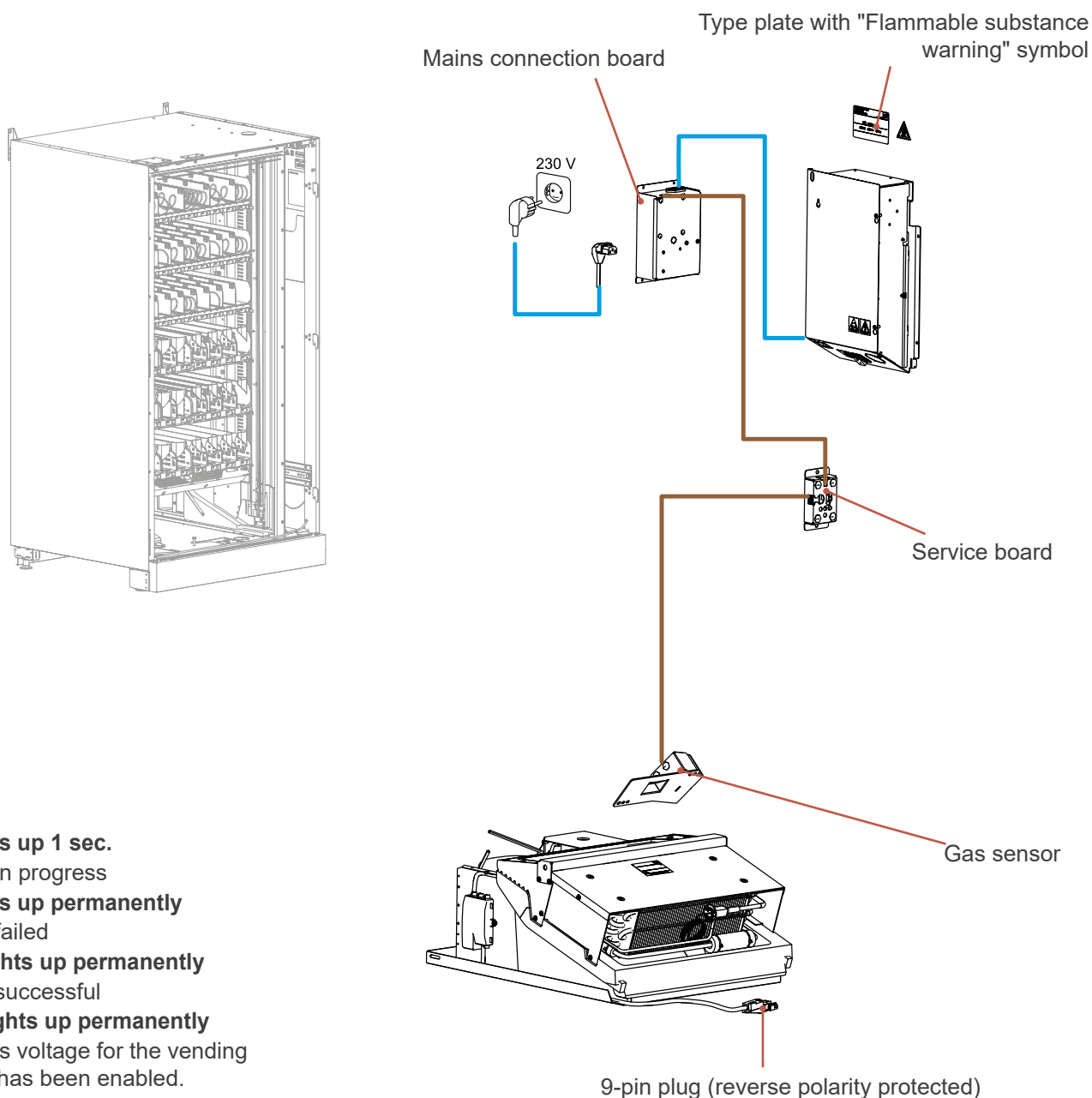
Telescopic door



- | | |
|---------------------------|-----------------------------|
| 1 Lock | 6 Coin mechanism (optional) |
| 2 USB interface | 7 Cash box, removable |
| 3 PC for touchscreen, HMI | 8 Control VMI |
| 4 Insertion channel | 9 Main switch |
| 5 Motorised coin return | 10 Power supply |

Vending machines with R-290 refrigeration unit

Vending machines with refrigeration units 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

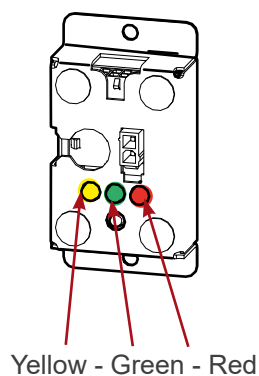
Green lights up permanently

Self-test successful

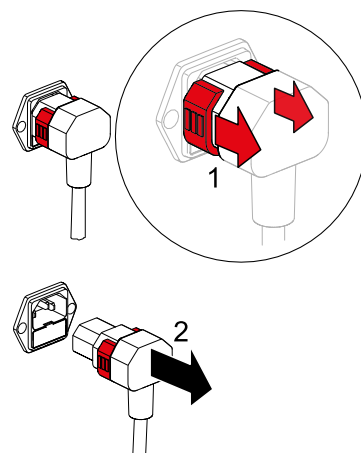
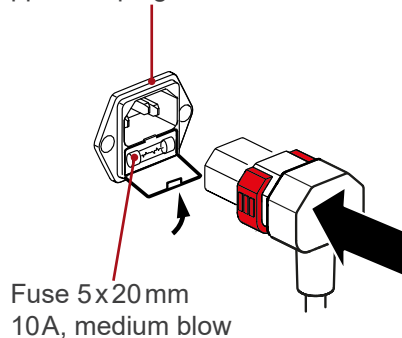
Yellow lights up permanently

The mains voltage for the vending machine has been enabled.

Service board



Appliance plug with C14 fuse



3. Maintaining the vending machine

3.1 Maintenance schedule

To keep unplanned vending machine downtime to an absolute minimum, we recommend adhering to the following maintenance schedule. Depending on the ambient conditions at the installation site, it may be necessary to adjust the maintenance intervals.

Every 30,000 vendes - at the latest every 12 months

Housing, vending machine door (see chap. 3.2 on page 14)

OK	Component	Additional equipment	Action/procedure
	Secure vending stand, fixings available?		Check
	Vending machine exterior	Cleaning and care products	Clean
	Vending machine door closes properly		Check
	Safety glass	Glass cleaner	Clean
	Bearing studs, vending machine door top and bottom	998 90 023 00	Lubricate
	Locking flap		Check operation
	Contact clip		Check integrity
	Lock	According to manufacturer specifications	Lubricate
	Door seal, entire circumference		Check, clean and – if necessary – maintain
	Seal (dispenser flap)		Check, clean and – if necessary – maintain
	LED operation		Check

Dispense outlet (see chap. 3.3 on page 16)

OK	Component	Additional equipment	Action/procedure
	Dispensing drum	998 90 037 01	Check, clean, lubricate
	Lift system (optional)		Check

Illumination (see chap. 3.4 on page 19)

OK	Component	Additional equipment	Action/procedure
	Design lighting (optional)		Check
	Product lighting		Check

Telescopic door (see chap. 3.5 on page 19)

OK	Component	Additional equipment	Action/procedure
	Coin return motor	Coin return button [R]	Check
	Display		Clean
	Coin return box		Clean

Compartment/Drawer, general (see chap. 3.6 on page 20)

OK	Component	Additional equipment	Action/procedure
	Price/selection sign legibility		Check
	Interior of the compartment/drawer	Rinse water	Clean
	Snap-in function of the compartment/drawer		Check

Pusher drawer (see chap. 3.7 on page 20)

OK	Component	Additional equipment	Action/procedure
	Product pusher	Can be moved with uniform force	Check
	Locking pusher/sliding piece		Check
	Pusher belt seated correctly		Check
	Rear belt deflection seats		Check
	Toothed belt free of damage?		Check
	Product retainer	Engages correctly; not damaged?	Check

Belt drawer (see chap. 3.8 on page 21)

OK	Component	Additional equipment	Action/procedure
	Blue transport belt	not damaged?	Check
	Self-aligning bearing		Lubricate

Payment system (see chap. 3.9 on page 22)

OK	Component	Additional equipment	Action/procedure
	Coin mechanism (optional)		According to manufacturer specifications
	Card reader (optional)		According to manufacturer specifications
	Banknote reader (optional)		According to manufacturer specifications

Refrigeration unit (see chap. 3.10 on page 22)

OK	Component	Additional equipment	Action/procedure
	Lint filter	Brush, compressed air	Clean
	Compressor	Brush, compressed air	Clean
	Condenser	Brush, compressed air	Clean
	Base plate ventilation slots		Clean
	Connection seals, front, rear + left, right in housing	Vaseline, rubber care solution	Check, clean, lubricate
	Plugs and connections		Check
	Fan	Brush, compressed air	Clean
	Gas sensor (no damage visible)		Check
	Gas inlet on the gas sensor: Dust, dirt, moisture deposits	Brush, cloth	Clean
	Activate self-test		Check
	Test gas sensor with test gas	Test gas	Check

Electrical check (see chap. 3.11 on page 26)

OK	Component	Additional equipment	Action/procedure
	Electrical repeat test according to VDE 0701		Carry out

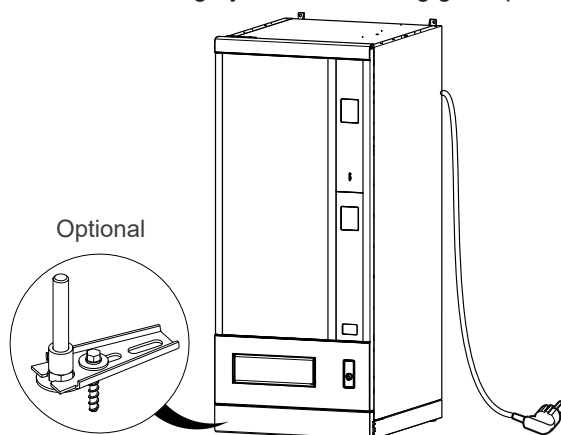
3.2 Housing, vending machine door

Additional equipment

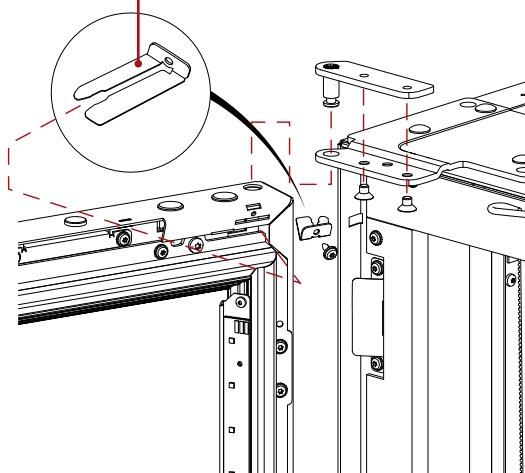
- Lubricant Berulub Fr 43 part no. 998 90 064 00
- Special grease e.g. Microlube GL 261 part no. 998 90 037 01
- Vaseline part no. 998 00 019 00

Procedure

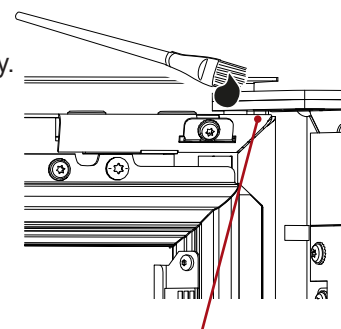
- Check that the vending machine is secure and anchored.
- Check the mains connection cable of the vending machine.
- Check the function and fit of the closed vending machine door.
- Check that the vending machine door bearings (top/bottom) are intact and lubricate them.
- Check that the contact clip is intact (do not lubricate it, as it has a grounding function between the vending machine and the door)
- Check that the guide sleeve is intact.
- Lubricate the contact surfaces of the latch bar.
- Check and lubricate the guide pin on the lock bar
- Check the function of the locking flap.
- Check the integrity of the seal on the vending machine door and maintain it if necessary.
- Check that all individual LEDs of the product lighting come on.
- Maintain the lock of the locking flap according to the manufacturer's instructions
- Check the integrity of the insulating glass pane.



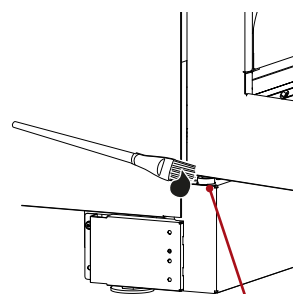
Contact clip



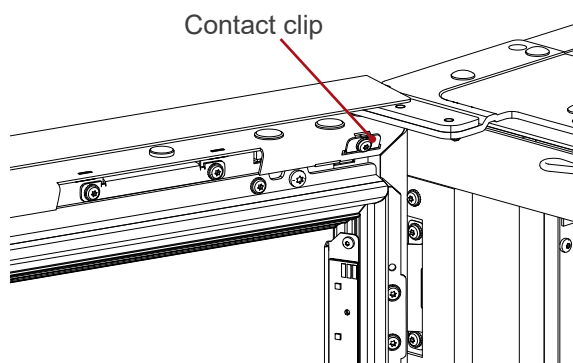
Structure of the door bearing



Lubricate the top of door bearing

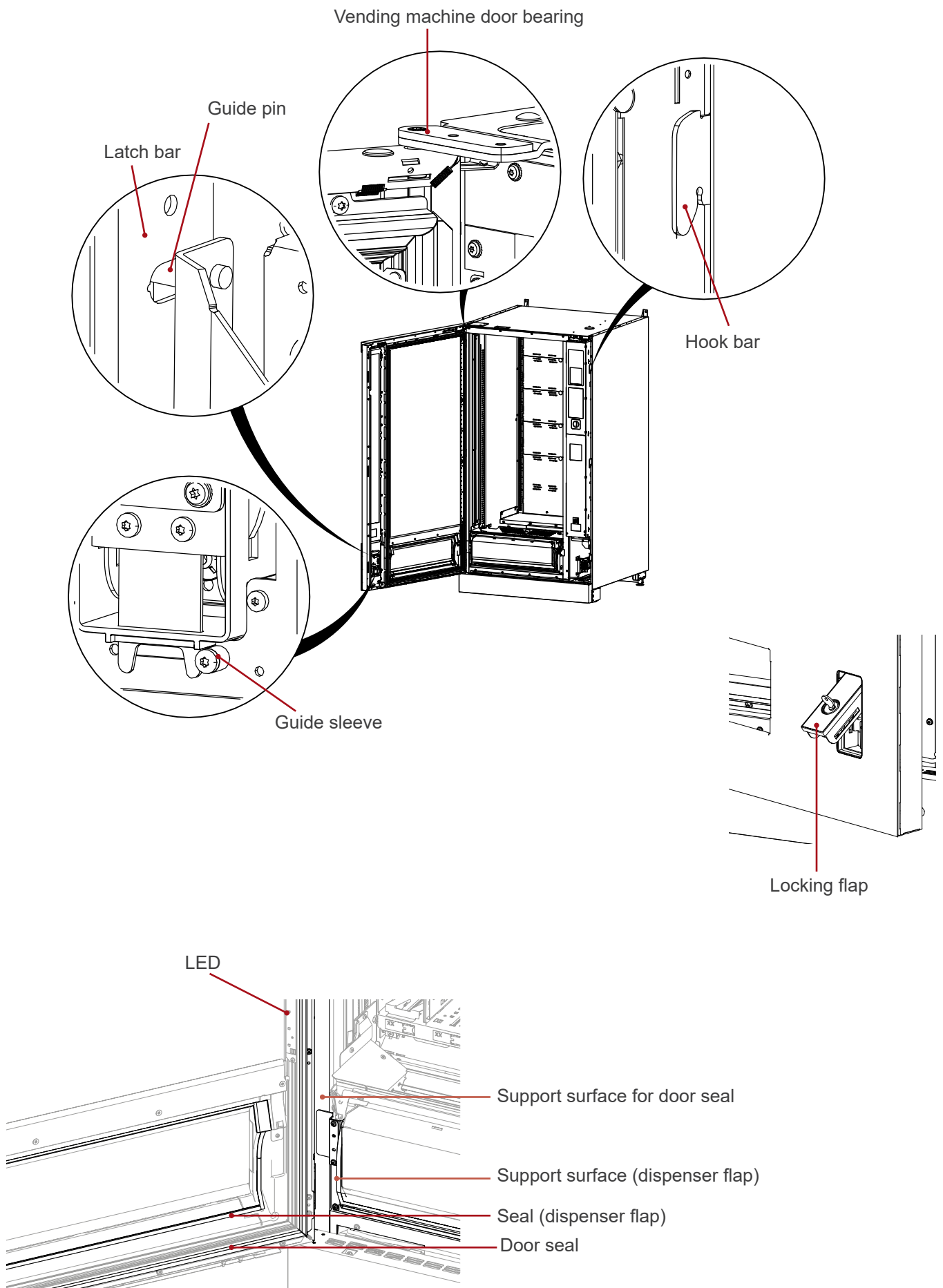


Lubricate the bottom of the door bearing; lift the door slightly from the other side with a large screwdriver or similar



Contact clip

Door bearing functional



3.3 Dispense outlet

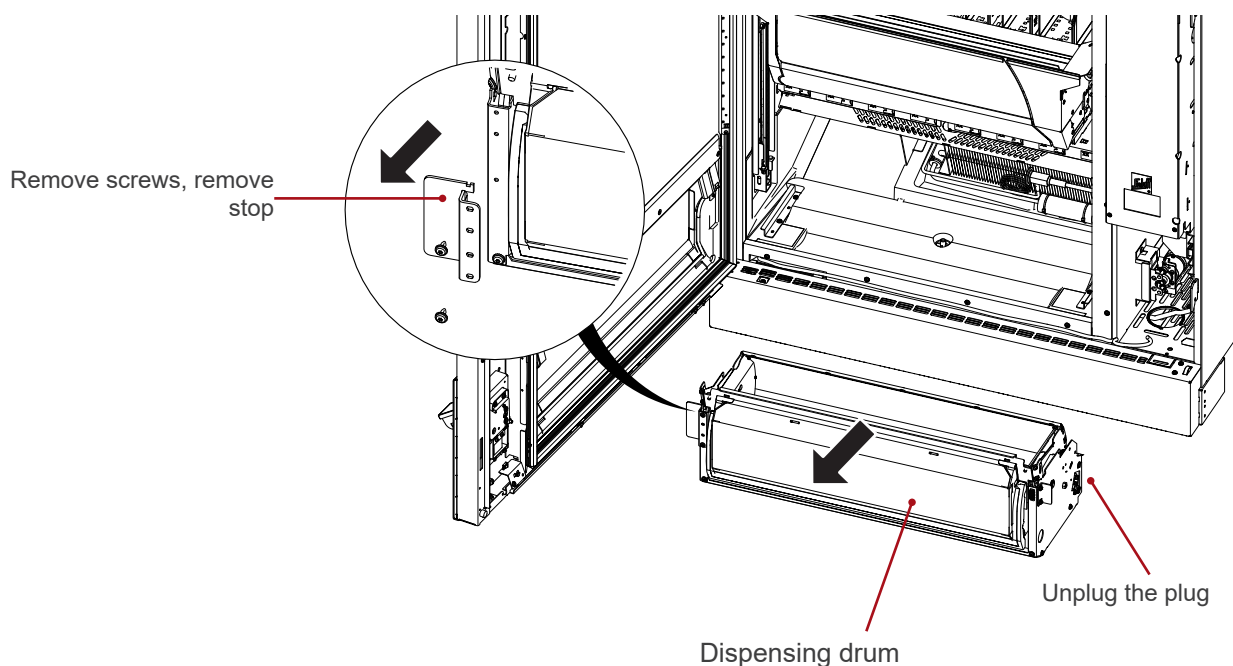
3.3.1 Removing and servicing the dispensing drum

Additional equipment

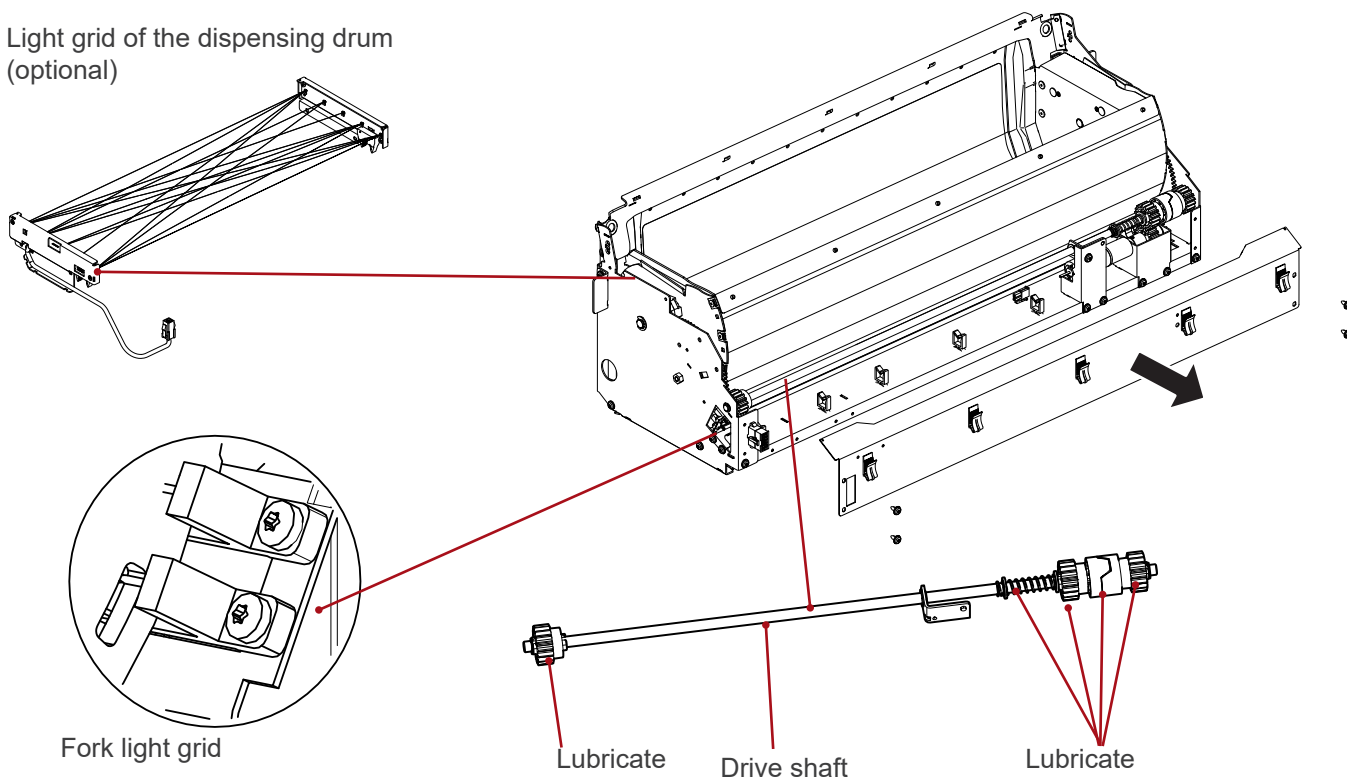
- Socket spanner TX25
- Lubricant Berulub Fr 43 part no. 998 90 064 00
- Special grease e.g. Microlube GL 261 part no. 998 90 037 01
- Compressed air/ compressed air can

Procedure

- Remove the dispensing drum
- Check the coupling function of the dispense outlet
- Clean the inside of the dispensing drum with a damp cloth.
- For vending machines without lift, clean the light grid on the dispensing drum with a brush or compressed air.
- Clean the fork light grid and associated holes with a brush or compressed air.
- On the drive shaft: Lubricate gear wheels, slide bearings with spring and sliding surface with lubricant Berulub Fr 43.
- Check the function of the dispenser flap. To do this, the dispensing drum must be correctly reinstalled. The software contains the commands "Dispense outlet open" and "Dispense outlet closed".
- Check the smooth motorised movement of the dispenser flap and shutter.

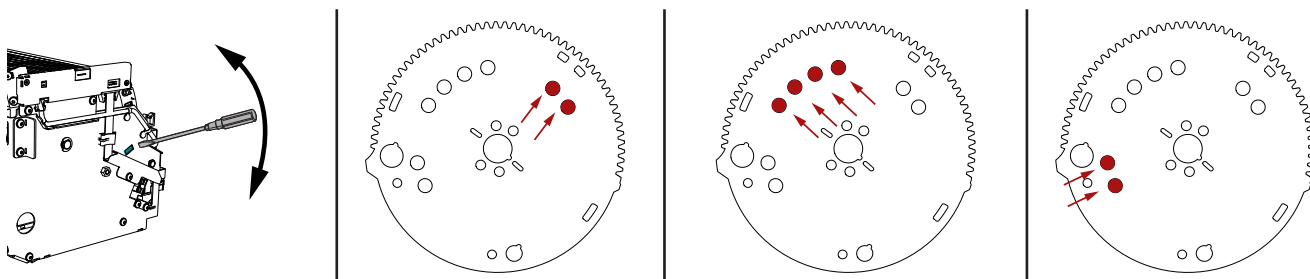


Light grid of the dispensing drum
(optional)

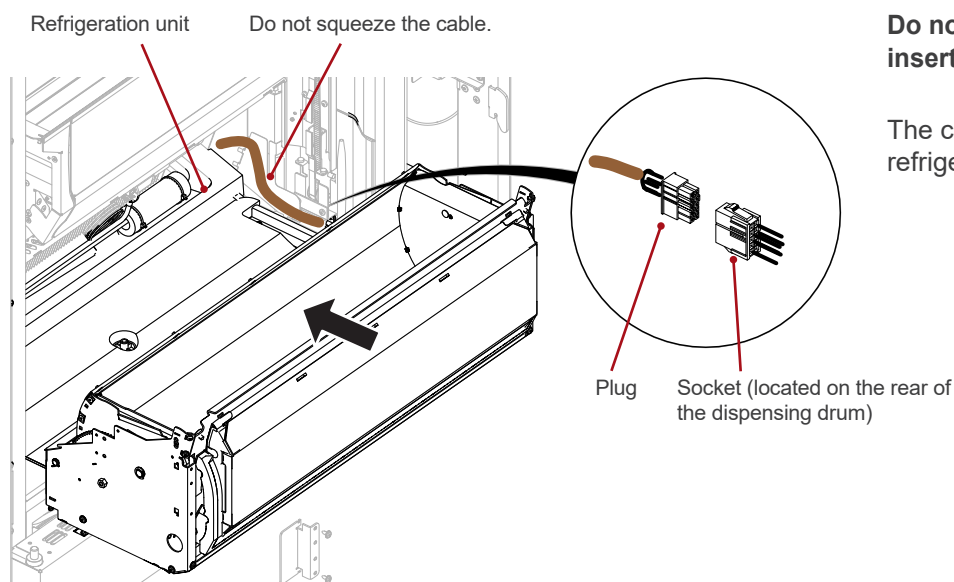


3.3.2 Dispensing drum: overcoming dead centres

The dispensing drum can be rotated by hand at some positions. A screwdriver can be used in three positions to overcome the dead centre of the mechanism.



3.3.3 Warning: installing the dispensing drum



Do not damage the cable when inserting the dispensing drum

The cable can be routed behind the refrigeration unit by hand.

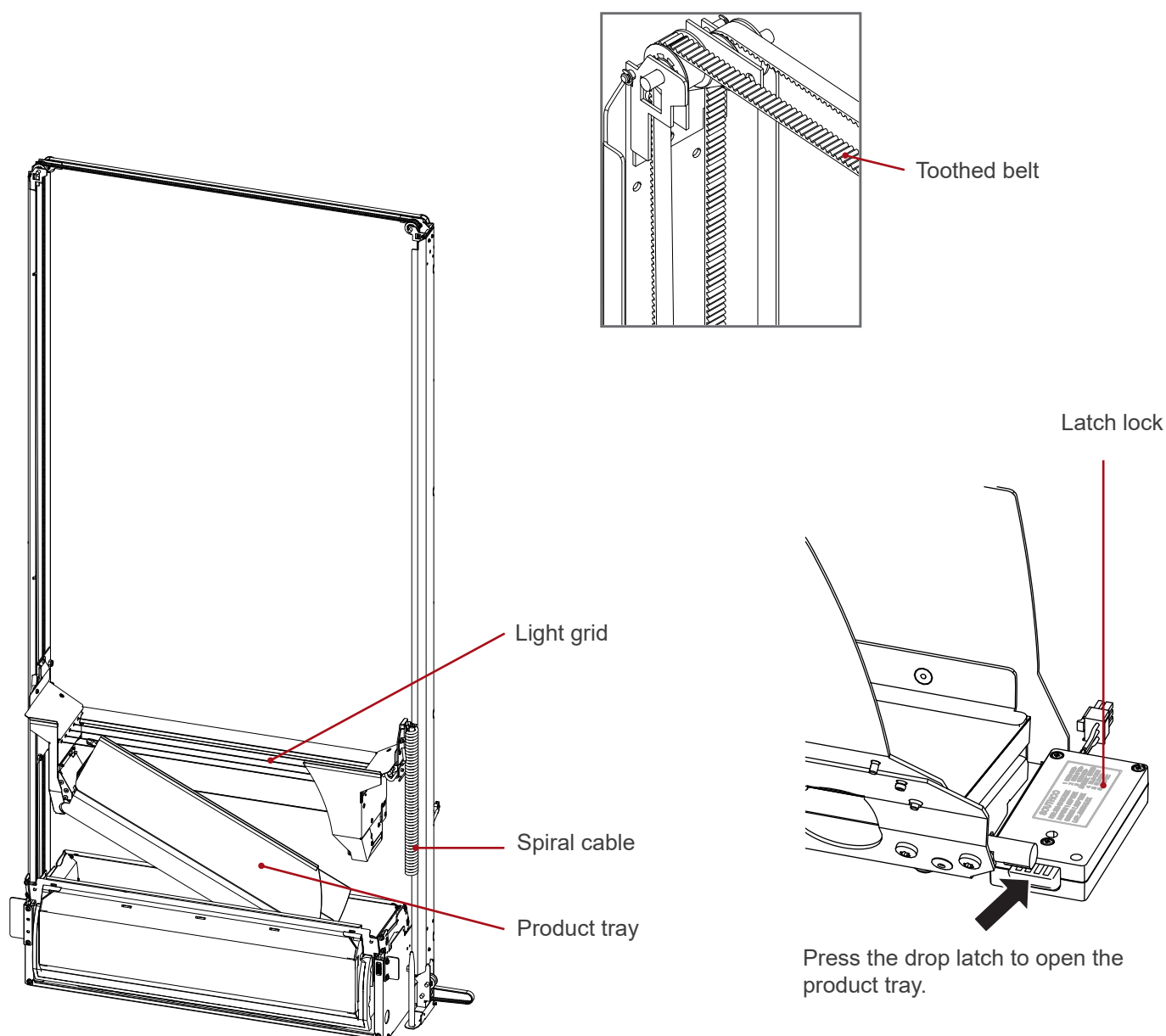
3.3.4 Lift system: Drive with timing belt (optional)

Procedure

- Check the spiral cable for damage.
- Check parallelism of the product tray to the compartments/drawers.
- Check the operation of the latch lock*.
- Check that the product tray folds easily.
- Clean the inside of the product tray with rinse water.
- Clean the light grid with a brush or compressed air.
- Check the operation of the light grid. The switching status of the light grid can be monitored via the menu path Diagnostics / Dispenser Test when the service key is inserted.

Note

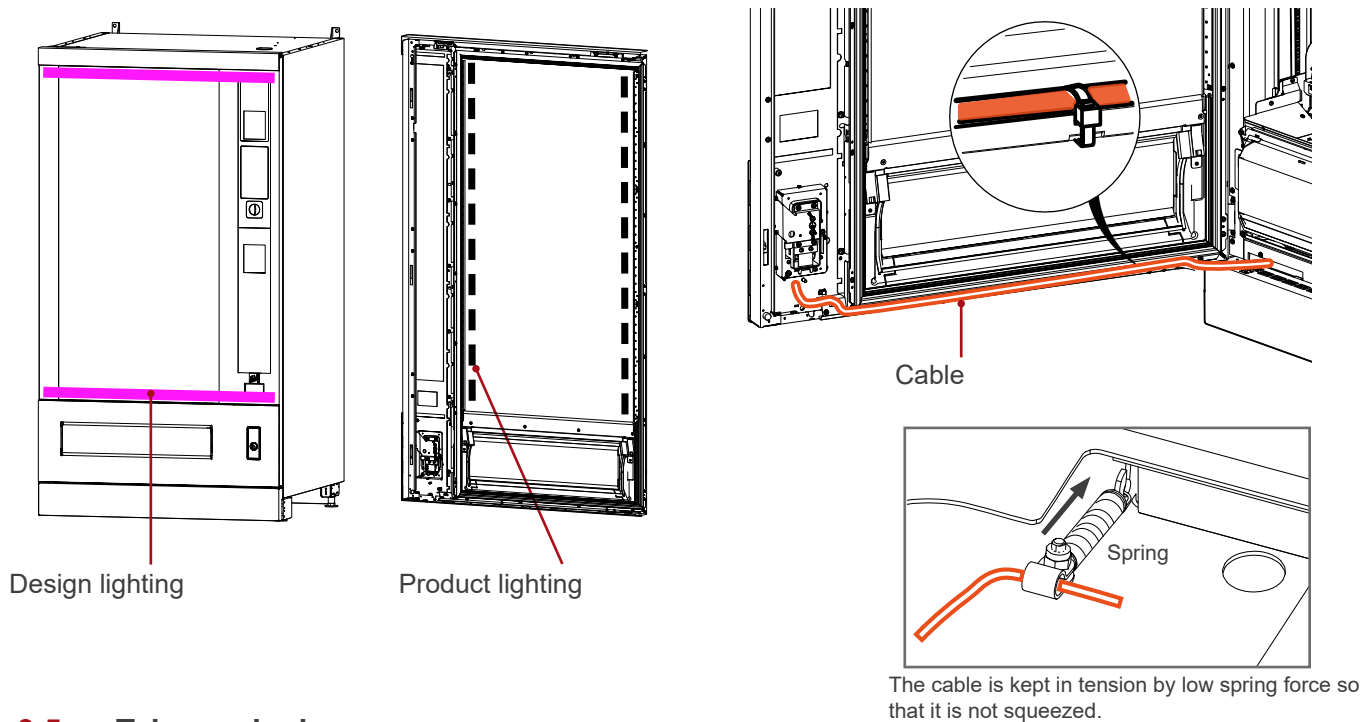
*The latch lock has an expected life of 110,000 cycles.
Recommendation: replace after 100,000 cycles.



3.4 Illumination

Procedure

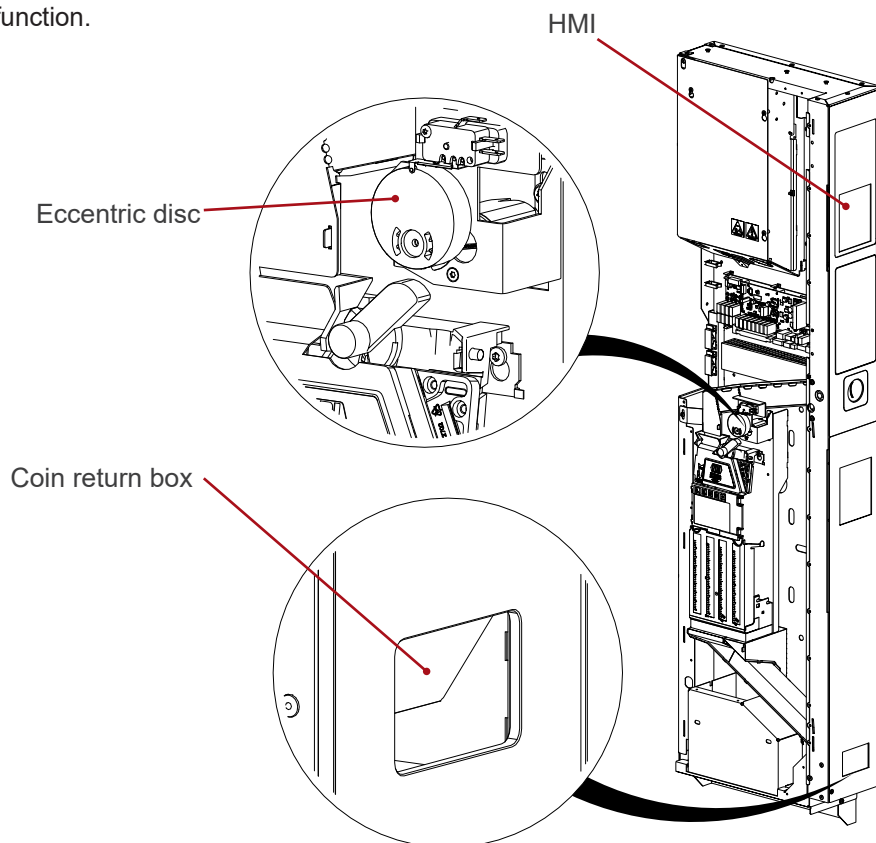
- Check the design lighting on the outside of the vending machine.
- Check the product lighting in the door.
- Check the cable between the vending machine door and the vending machine housing. The cable is inserted at the bottom of the door in the rebate and secured with cable ties.



3.5 Telescopic door

Procedure

- Check return motor with eccentric disc function.
- Clean the HMI (display).
- Clean the coin return box.



3.6 Compartments/Drawers, general

Procedure

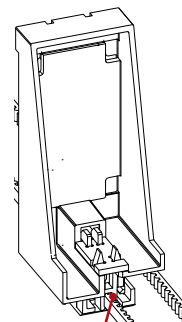
- Check legibility of price/selection signs.
- Check the interior of the compartment/drawer for dirt and clean with rinse water.
- Check the snap-in function of the compartment/drawer.

Additional equipment

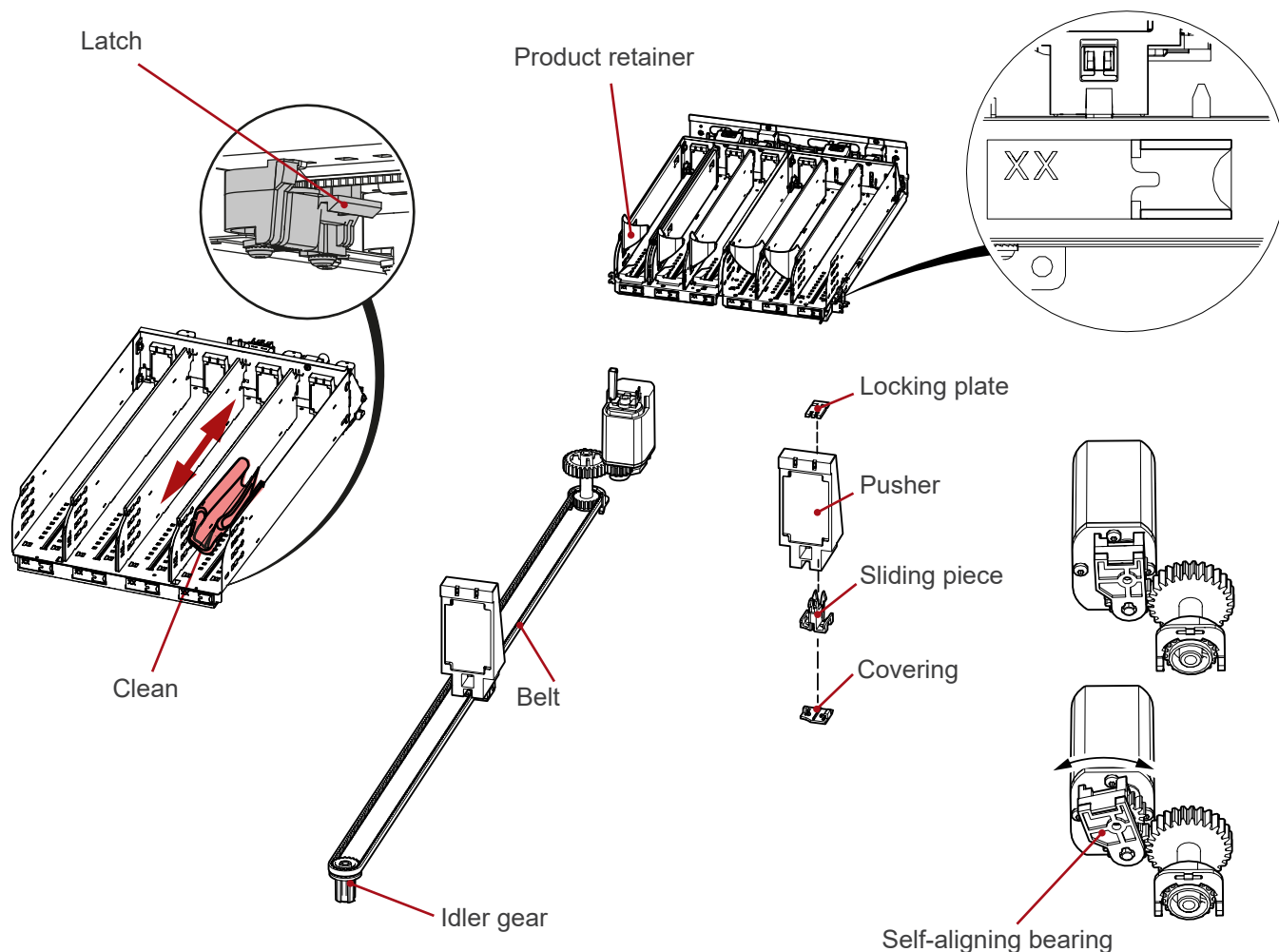
Lubricant Berulub FR 43 part no. 998 90 064 00

3.7 Pusher drawers

- Check the fit and function of the product retainers.
- Check the fastening of the pusher.
- Check the mobility of the pusher.
- Check the ease of movement of the pendulum.
- Check the detent of the pusher/sliding piece.
- Check the fit of the pusher seat belt.
- Check for damage to timing belt.
- Check the latch (if fitted) for intactness (latching function).
- Lubricate the front idler gear and its bearing with Berulub FR 43.

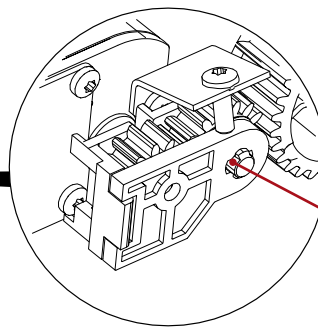
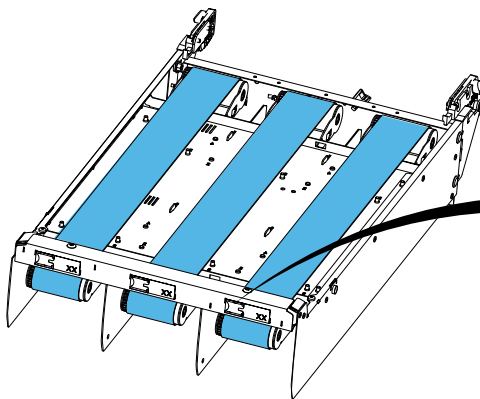
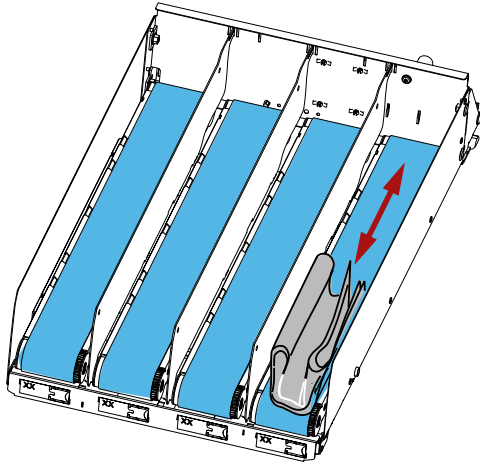


Pusher/ sliding piece
detent



3.8 Belt drawer

- Check the integrity of the blue conveyor belt
- Use a slightly damp cloth and a little washing-up liquid to clean the blue belts in the belt drawer.
- Do not use aggressive cleaning agents.
- Lubricate the self-aligning bearing with Berulub FR 43.



Self-aligning bearing

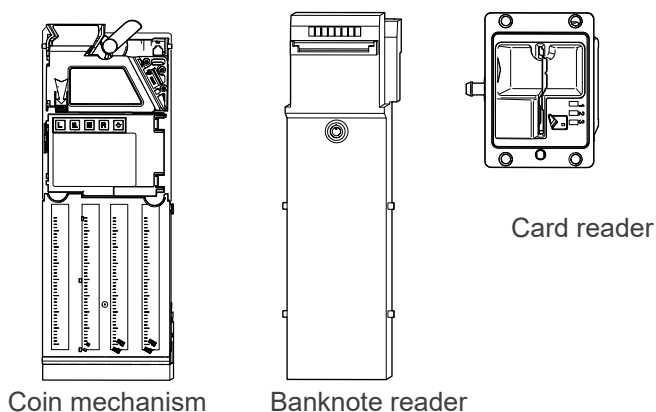
3.9 Payment systems (optional)

Additional equipment

- Original Operating Instructions

Procedure

- Check or maintain the payment systems according to the manufacturer's instructions.



3.10 Refrigeration unit

3.10.1 Removing the refrigeration unit

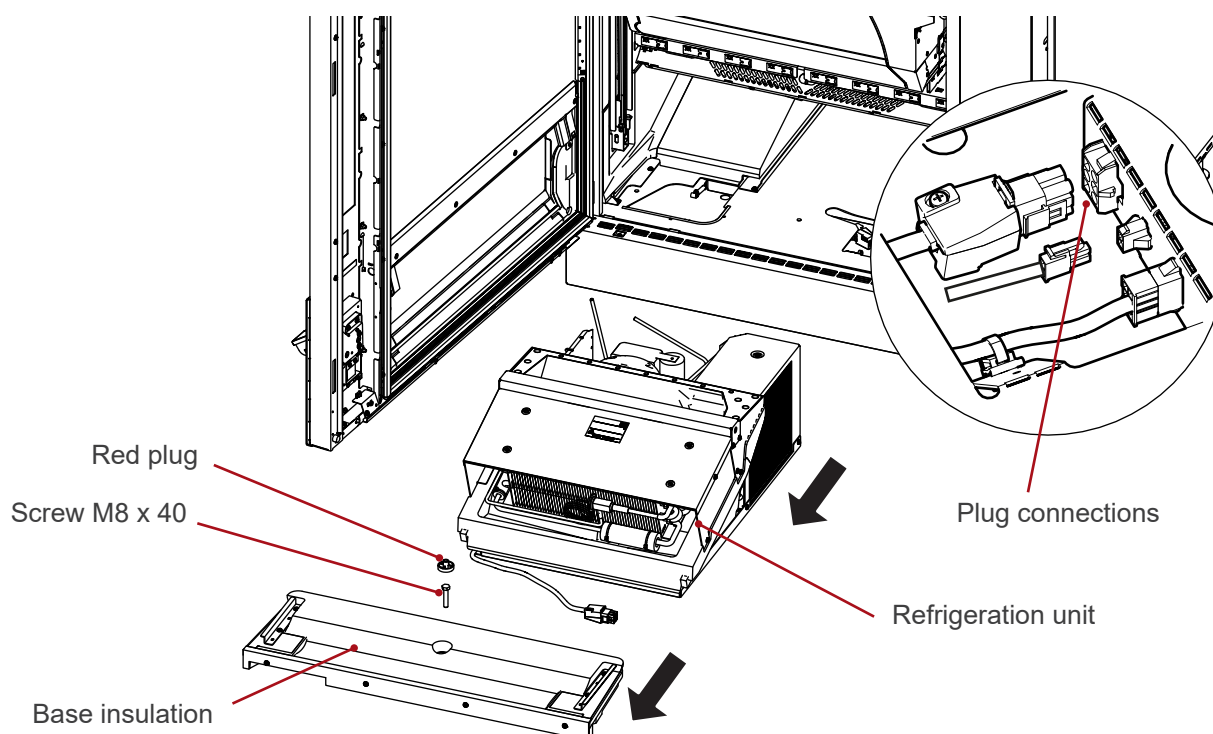
- The refrigeration unit module can be damaged if it is turned upside down.
- Store and transport the refrigeration unit module in the installation position only.
- If the refrigeration unit module has been turned upside down, it must be stored in the installation position for at least 24 hours before switching on.
- Do not start the compressor more than 5 times per hour. Do not go below the minimum compressor standstill time of 5 minutes.
- The vending machine can be sharp-edged on the inside. Wear protective gloves when carrying out cleaning work.

Additional equipment

Socket spanner SW 13

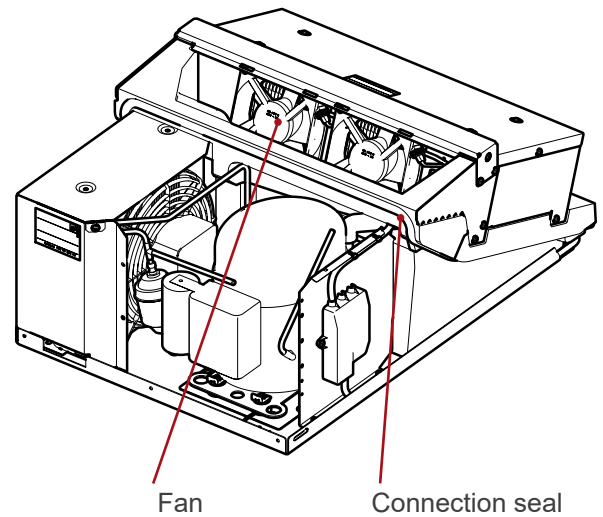
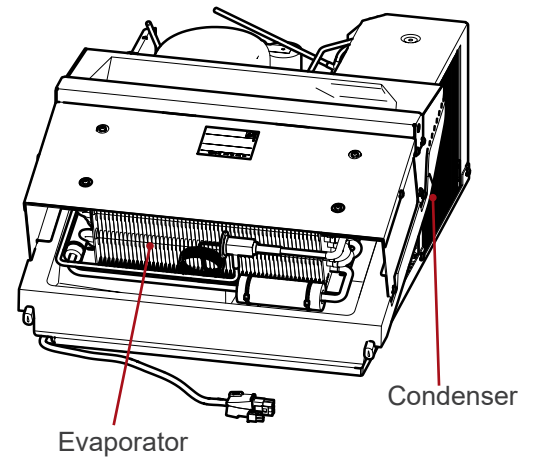
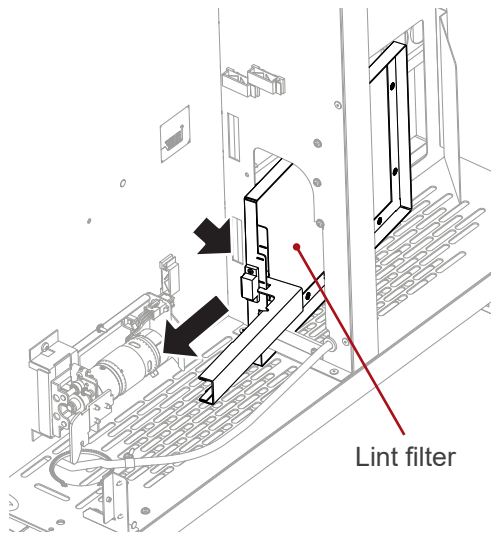
Procedure

1. Remove the dispensing drum (see chap. "3.3 Dispense outlet" on page 16)
2. Remove the red plug from the centre of the floor insulation.
3. Unscrew the M8 hexagon head screw
4. Remove the base insulation from the top
5. Disconnect the plug connections
6. Remove the refrigeration unit from the front



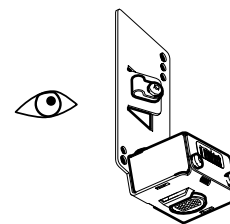
3.10.2 Servicing the refrigeration unit

- Clean lint filter, evaporator and condenser with brush or compressed air.
- Check the connection seals on the refrigeration unit system.
- Check the plugs and electrical connections of the refrigeration unit system for damage.
- Test the operation of the fans.



3.10.3 Checking the gas sensor

Visually inspect the gas sensor for potential damage.



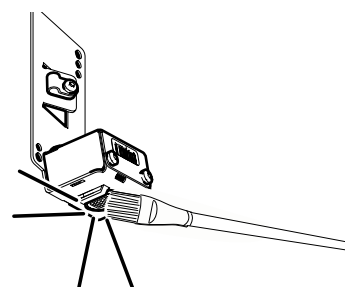
3.10.4 Cleaning the gas sensor

Only clean the gas inlet with a brush. The gas inlet must be kept clear at all times.



NOTE

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

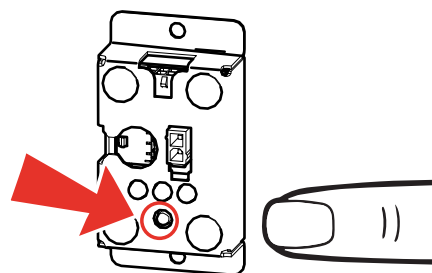


3.10.5 Activating a self-test

To carry out the test, the vending machine must be switched on and ready for operation.

Press the button on the service board for at least 2 seconds. The vending machine is disconnected from the mains while the button is pressed, the **yellow LED** goes out and a self-test is triggered.

- This test checks the two-pole mains disconnection of the vending machine via the two cut-off relays. If the self-test is successful, the **green LED** lights up.
If the **red LED** lights up constantly, repeat the test. If the **red LED** remains lit, the shut-off device must be replaced.
- When the button is released, the mains voltage for operating the vending machine is connected to the power supply again and the **yellow LED** lights up. The vending machine goes into operation.



3.10.6 Testing the sensor

Requirements

- The gas sensor must be accessible (gas inlet)
- 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.*

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

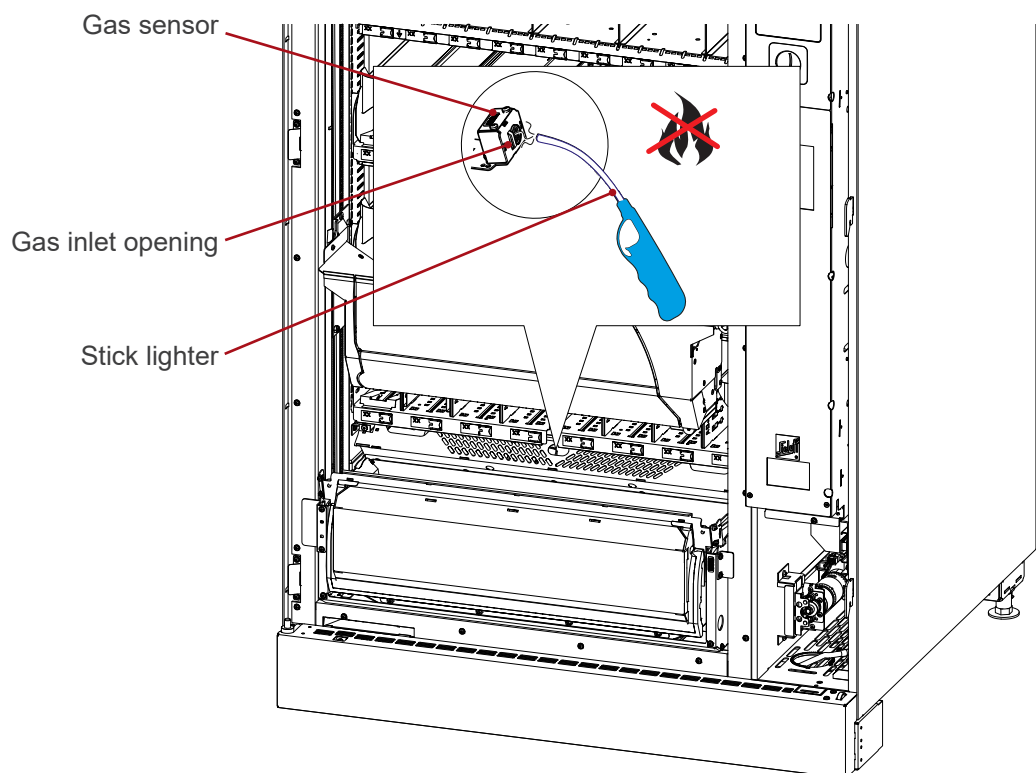
✓ Shut-off device is functioning correctly.

If the vending machine has not switched off automatically, proceed as follows:

- Check the level of the stick lighter and the flame height (2 cm). Repeat the steps for testing the sensor.
- If the test fails again, the gas sensor must be replaced.
The vending machine must be taken out of service. The shut-off device and the refrigeration unit must be checked.

After the check

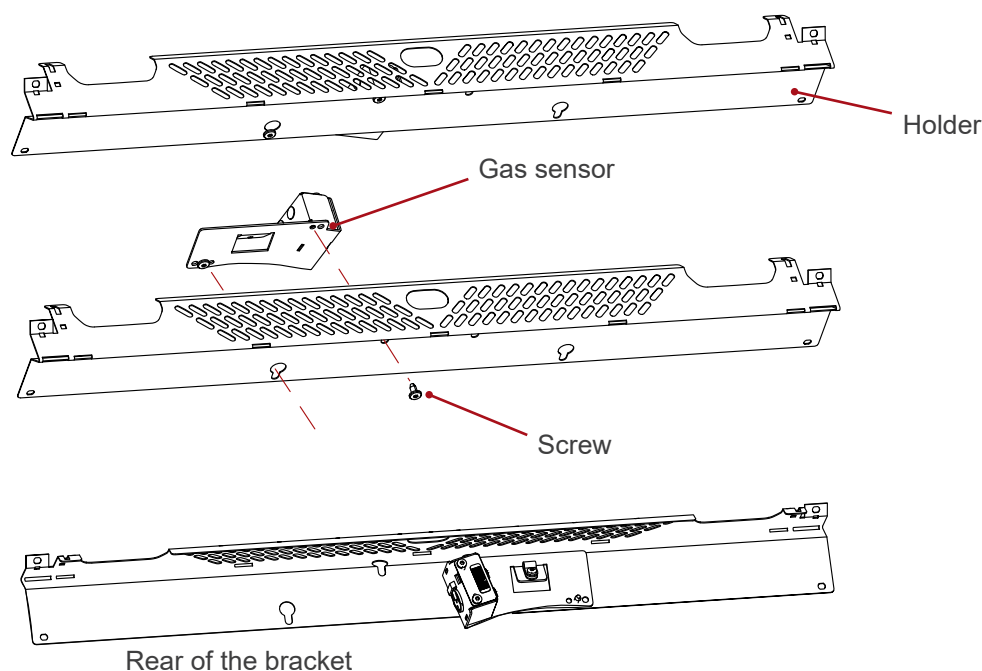
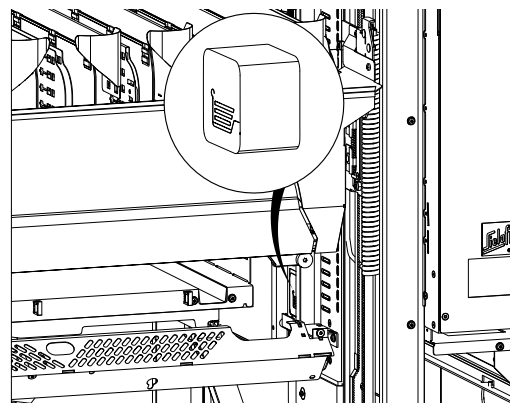
It can take several minutes for the gas to escape from the sensor head again and for the concentration in the sensor to fall below the maximum permissible level. The process can be accelerated by fanning air to the sensor.
The vending machine switches itself on again automatically.



3.10.7 Replacing the gas sensor

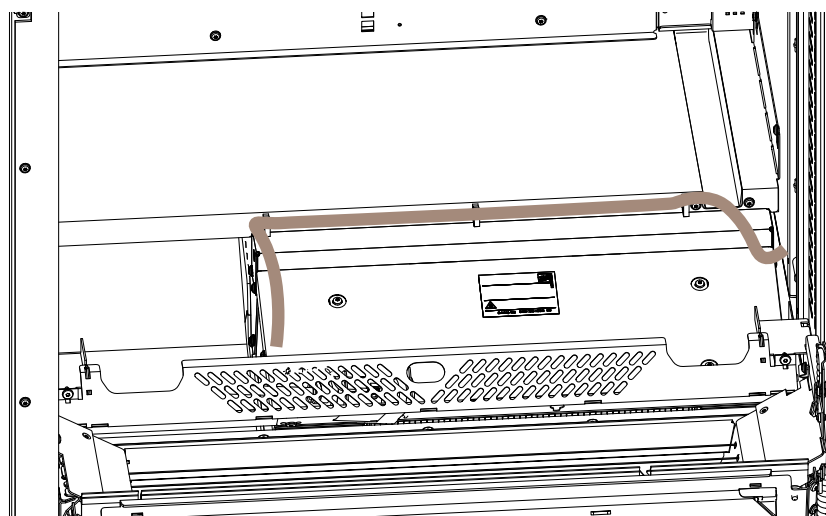
Procedure

1. Disconnect the vending machine from the power supply
2. Remove the compartments/drawers from the lowest level
3. Pull out the sealing block in the right-hand side panel
4. Disconnect the plug connection for the gas sensor behind the compartment/drawer.
5. Loosen the screws on the gas sensor bracket
6. Remove the gas sensor with bracket and supply line.



Installation

To install, proceed in reverse order. When passing through the side panel insulation, make sure that the sealing block is inserted correctly to avoid energy loss. After installation, check the mechanical integrity of the components.



3.11 Repeat test

To maintain the safe condition, repeat tests must be determined and specified by the operator (electrical repeat test according to DIN VDE 0701-0702)

4. Converting and repairing the vending machine

4.1 Conversion to 2 temperature zones (2T)

4.1.1 Setting up temperature zones

The vending machine's sales area can be divided into two different temperature ranges with a partition. There are two configurations with different temperatures inside the vending machine that can be achieved.

Configuration	Temperature zone 1		Temperature zone 2		Example
2T food	<4 °C		8 °C–18°C		Food, snacks
Combined	6°C–8°C		13°C–18°C		Drinks, snacks
	2T food			Combi	
Vending machine	SÜ SiLine S	SÜ SiLine M	SÜ SiLine S	SÜ SiLine M	
Set of parts, part no. for partition	343 01 188 00	344 01 038 00	343 01 192 00	344 01 061 00	

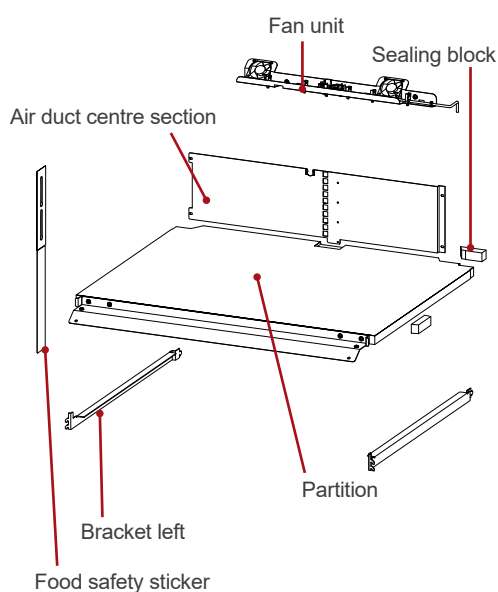
4.1.2 Distinction between food safety (temperature control) (2T LM) and combi

The vending machines can be subsequently converted to "food-safe" or "combi".

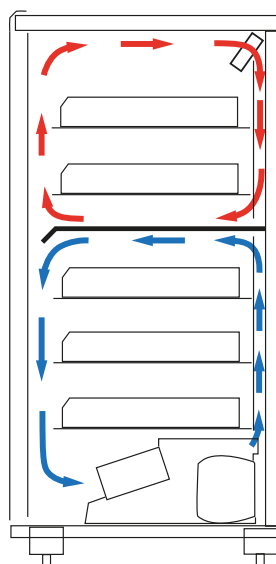
- The legal requirements for food safety (temperature control) must be complied with. The cold chain of the products must not be interrupted.
- For "combined", the cold compartment is divided into two different temperature zones. This allows warmer snack items to be offered at the top and colder drinks at the bottom at the same time.

Example for part no. 344 01 038 00

Set of parts 2T LM refrigeration unit 4°/14°C
2 temperature zones food zone
SÜ SiLine M



2T food

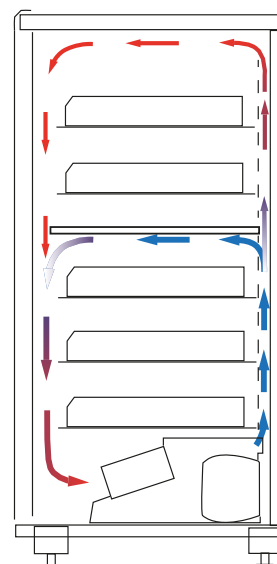


Temperature zone 2

Temperature zone 1

- Observe legal requirements
- Do not interrupt the cold chain
- Door monitoring
- Temperature zone 1 < 4°C

Combi



- Snack items at the top
- Drinks at the bottom
- Upper temperature zone 2 is determined by convection, e.g. blue 8°C; red 14°C

4.2 Food safety configuration (temperature control) (2T LM)

The following data applies to the 2T LM configuration.

4.2.1 Requirements

For the installation of the partition, the vending machine must have the following properties:

Version

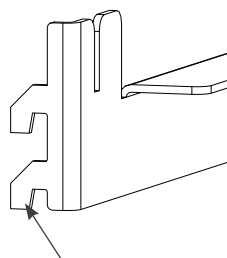
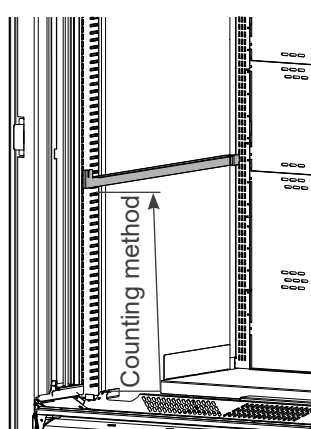
- Segmented air duct (from week 20/2018)
- Snap-in rails

4.2.2 Mounting options

The insulated partition can be mounted in the following rasterisations:

Rasterisation counted from bottom

- 28
- 43
- 58



The lower hook must be positioned in the corresponding hole of the table value.

For ease of counting, every 10th rasterisation is specially marked.

Minimum distance to the compartment/drawer at the top:

Compartment/Drawer	Number of free rasterisations
Pusher drawer	2
Spiral compartment	2
Spiral compartment with interference suppression board	2

Minimum distance to the compartment/drawer at the bottom:

Compartment/Drawer	Number of free rasterisations
Pusher drawer	9
Spiral compartment	9
Spiral compartment with interference suppression board	9

Rasterisations 80 and 79 are not permitted for the installation of compartments/drawers in this version.

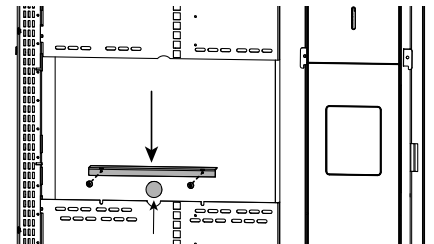
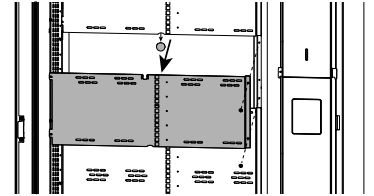
4.2.3 Converting the air duct

You will need the following tools to install the partition:

- TX20 screwdriver.
- Reducing bracket 343 00 198 00 (only for SÜ SiLine S)
- Air duct centre section

Carry out the following steps to mount the partition:

1. Expand the drawers.
 2. Determine the mounting of the rasterisation (for specifications see page 28).
 3. Remove the corresponding air duct plate.
 4. Remove the plug-in disk.
 5. SiLine S only: Mount the reducing bracket.
 6. Install new shortened air duct centre section. The sheet must be flush with the air duct sheet at the top.
- ✓ Air duct is converted.



4.2.4 Fitting the fan unit

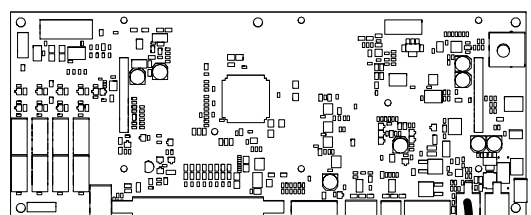
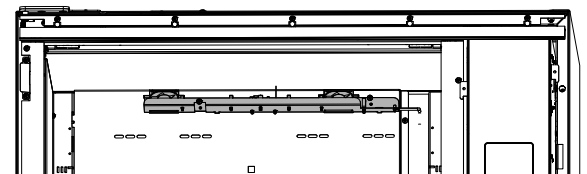
Temperature zone 2 is controlled by a fan unit (fan support 344 01 040 00 SiLine M/ 343 01 189 00 SiLine S). The fans start automatically from 18°C until approx. 14°C is reached again.

Additional equipment:

- Fan support
- Screwdriver TX 20

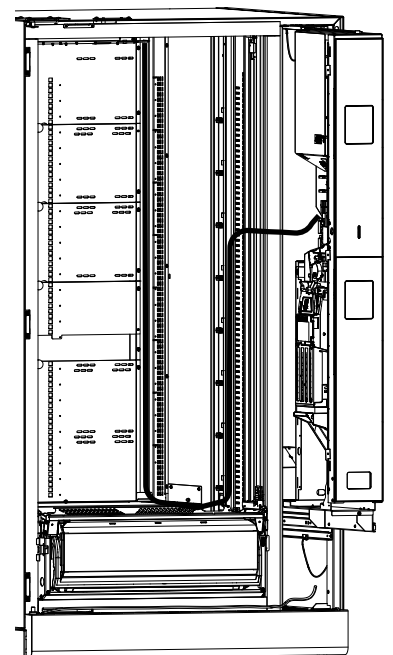
Procedure:

1. Mount the fan support in the vending machine.
 2. Lay the cable in the cable duct to the telescopic door.
 3. Plug in the cable on the circuit board at slot X2.
- ✓ Temperature zone 2 is prepared.



Fan cable

Existing cable



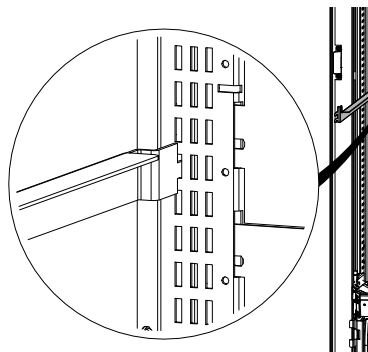
4.2.5 Installing the partition

Additional equipment:

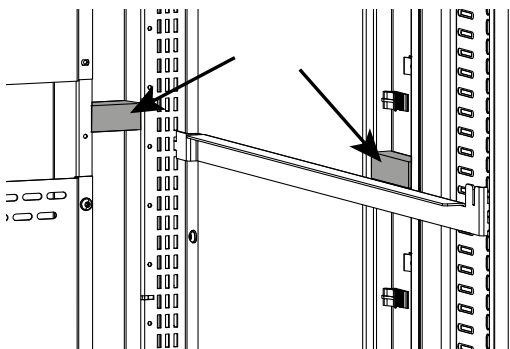
- Partition
- Sealing blocks

Procedure:

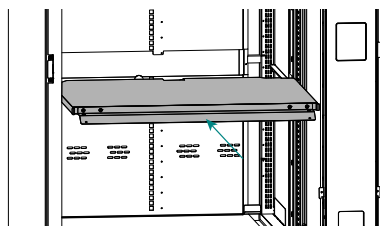
1. Insert the bracket into the vending machine wall at the appropriate installation height.



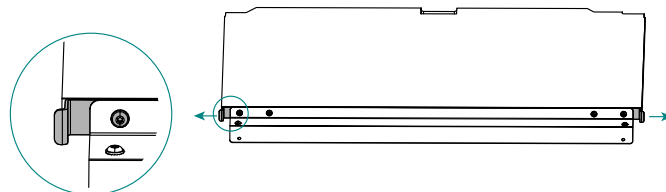
2. Insert the sealing blocks.



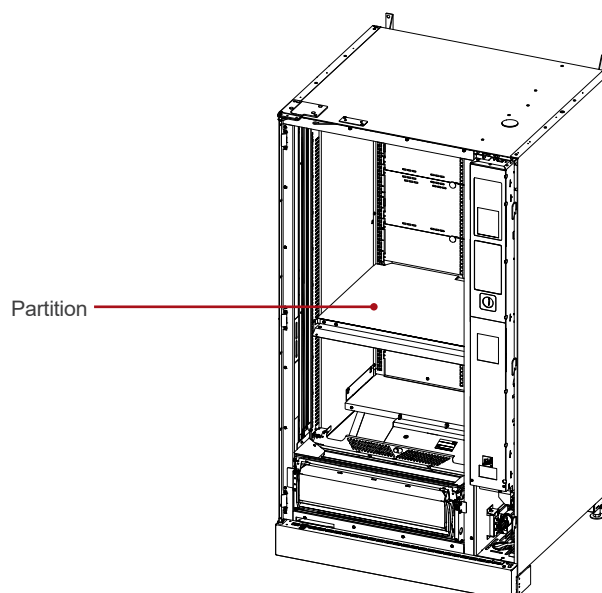
3. Slide the partition onto the brackets.



4. Lock the partition (right and left).



- ✓ Partition is installed.



4.2.6 Documenting changes

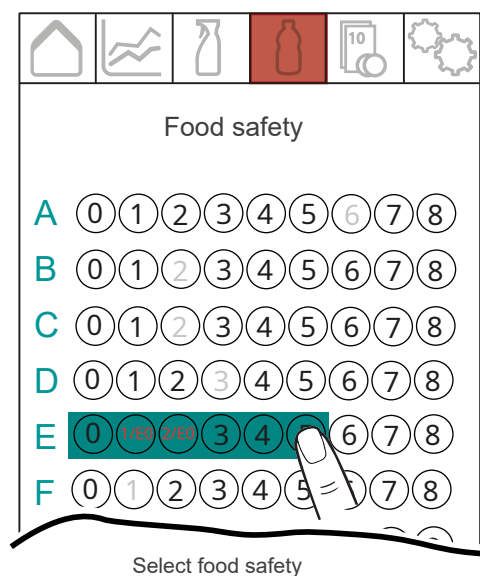
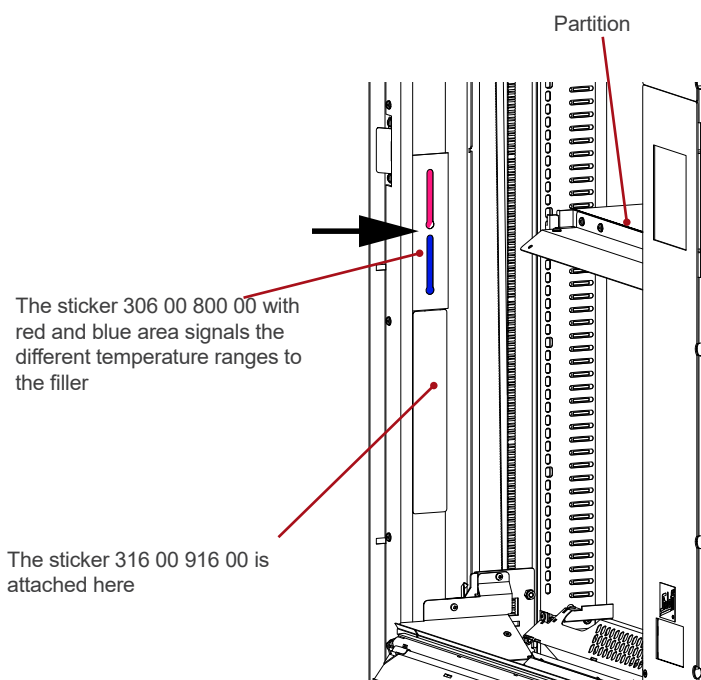
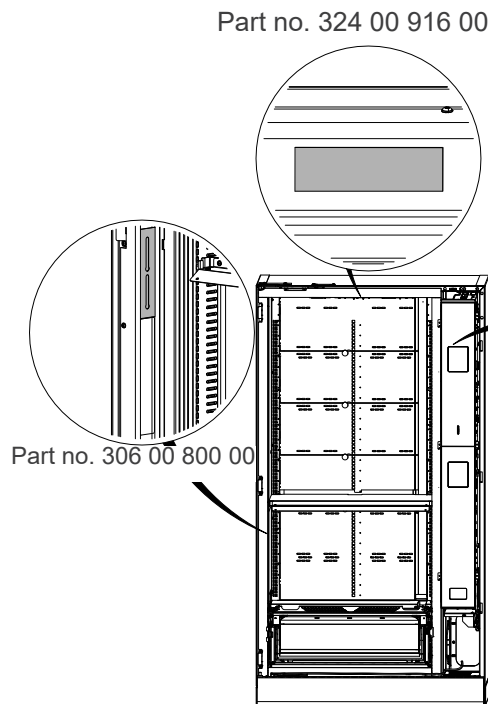
Only the temperature of temperature zone 1 is controlled. The temperature of temperature zone 2 is produced automatically. The set temperature is maintained with an accuracy of $\pm 1^{\circ}\text{C}$.

Additional equipment:

- Temperature notice 2T sticker (part no. 306 00 800 00)
- Attention food bearing sticker (part no. 324 00 916 00)

Procedure:

1. Attach sticker.
 2. Install compartments/drawers.
 3. On the HMI, select Products/Advanced Configuration/Food Safety.
 4. Activate food safety.
 5. Select compartments/drawers for food safety.
→ Selected compartments/drawers are now highlighted in green.
 6. Press Activate.
 7. Press Save.
 8. Set temperature by going to:
Machine configuration/Temperature/
- ✓ Food safety is activated.



4.3 Combi configuration

The following data applies to the Combi configuration (see “4.1.2 Distinction between food safety (temperature control) (2T LM) and combi” on page 27).

4.3.1 Requirements

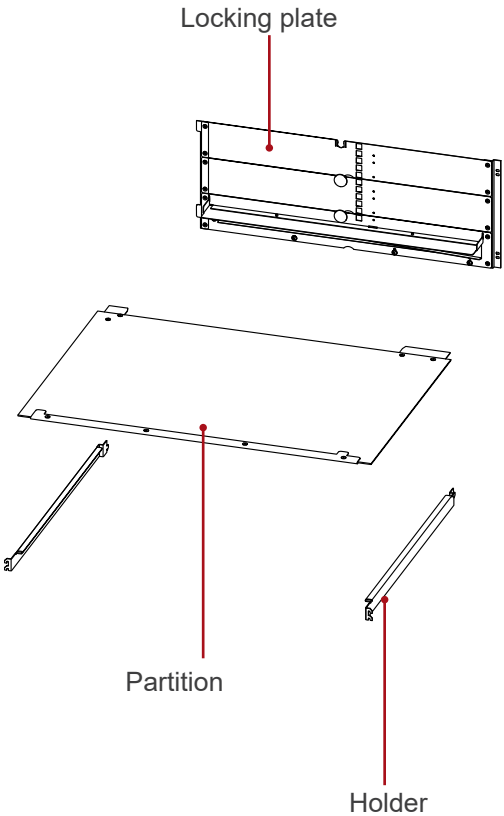
Version

- Segmented air duct (from week 20/2018)
- Snap-in rails

4.3.2 Mounting options

The partition can be mounted in the following rasterisations:

Rasterisation	Cold air cover fitting instructions	Cold air regulator
29	Bottom	Open
34	Middle	Open
39	Top	Open
44	Bottom	Close
49	Middle	Close
54	Top	Close
59	Bottom	Close

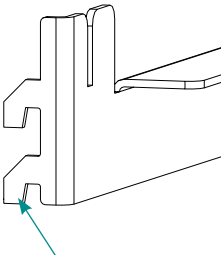
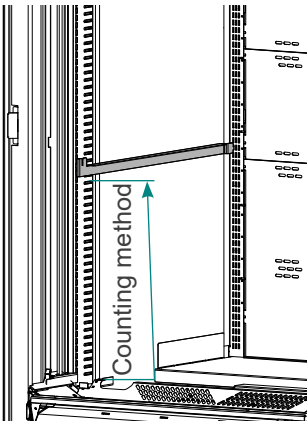


Minimum distance to the compartment/drawer at the top:

Compartment/Drawer	Number of free rasterisations
Pusher drawer	1
Spiral compartment	1
Spiral compartment with interference suppression board	1

Minimum distance to the compartment/drawer at the bottom:

Compartment/Drawer	Number of free rasterisations
Pusher drawer	9
Spiral compartment	8
Spiral compartment with interference suppression board	9

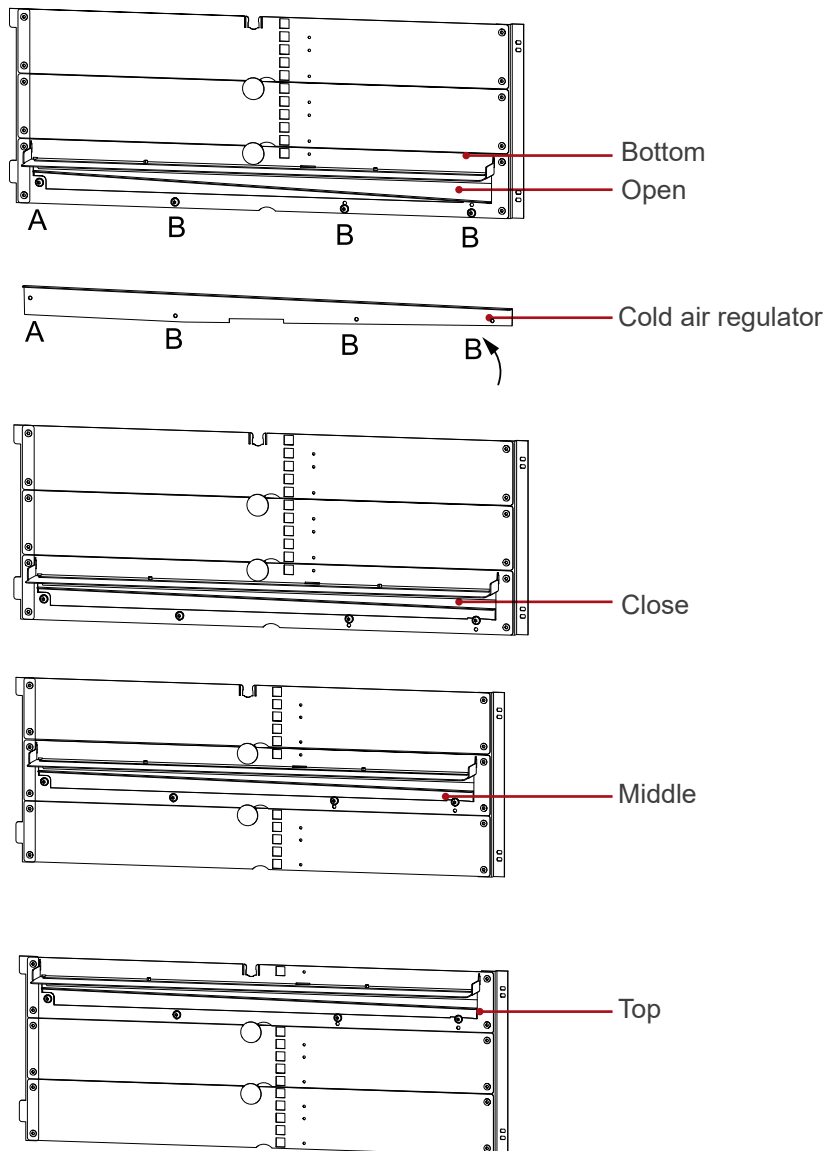


The lower hook must be positioned in the corresponding hole of the table value.

For ease of counting, every 10th slot is specifically identified.

4.3.3 Mounting options of the cold air regulator

The cold air regulator must be adjusted differently depending on the installation position (see "4.3.2 Mounting options" on page 32).



"Open" and "closed" setting

A - Pivot point (loosen screw slightly)
B - Remove the screws. Slightly rotate the cold air regulator around pivot point A. Position is then "Closed". Replace the screws.

To allow maximum flexibility, the cold air regulator can be used in three positions: Top - Middle - Bottom

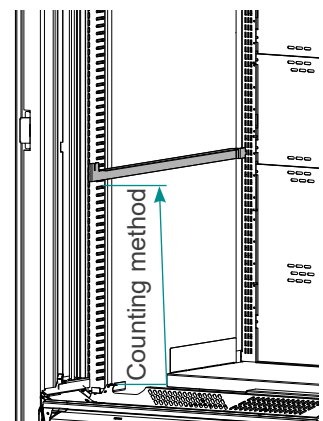
4.3.4 Converting the air duct

Additional equipment:

- Screwdriver TX20
- Adjusted cold air regulator

Procedure:

1. Expand the compartments/drawers.
 2. Determine the mounting of the rasterisation (see page 32).
 3. Remove the corresponding air duct plate.
 4. Remove the plug-in disk.
 5. Mount the cold air regulator with the removed plug-in washer and screws
- ✓ Air duct is converted.



For ease of counting, every 10th rasterisation is specially marked.

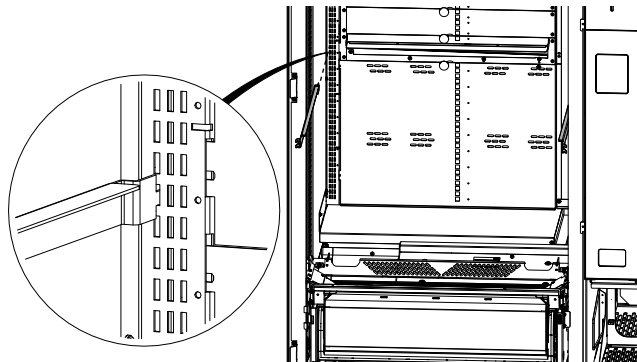
4.3.5 Preparing the partition

Additional equipment:

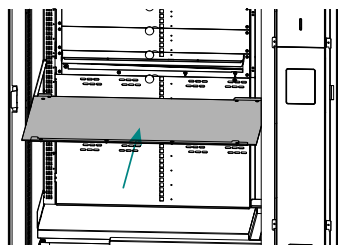
- Brackets
- Partition

Procedure:

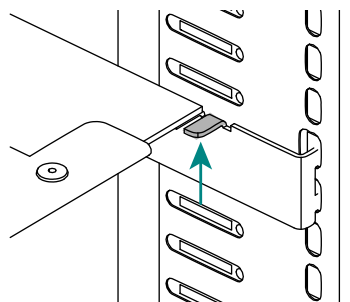
1. Insert the bracket into the vending machine wall at the appropriate installation height.



2. Slide the partition onto the brackets



3. Secure the partition with the locking lugs



✓ Partition is installed.

4.3.6 Changes

Only the temperature of temperature zone 1 is controlled. The temperature of temperature zone 2 is produced automatically.

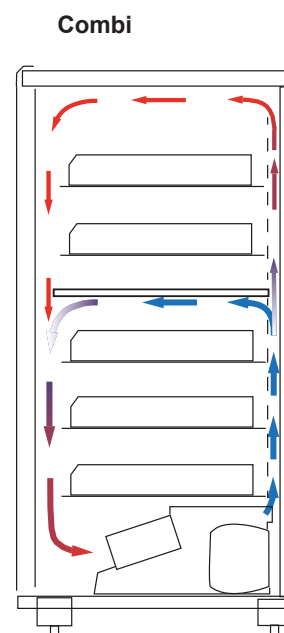
Procedure:

1. Install drawers.
2. Set temperature.

✓ The vending machine is configured for combined mode.

Temperature zone 2

Temperature zone 1



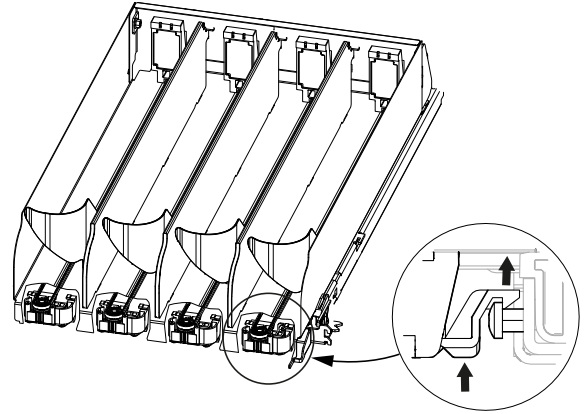
4.4 Configuring the pusher drawer

Drawers can be removed and reinstalled elsewhere in the vending machine. Depending on the product diameter, an insert may be necessary.

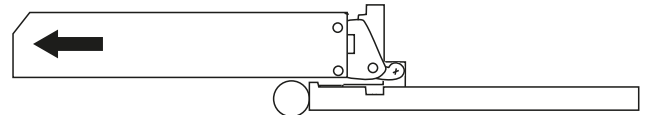
4.4.1 Removing the pusher drawer

For maintenance and conversion work, you must remove the pusher drawer.

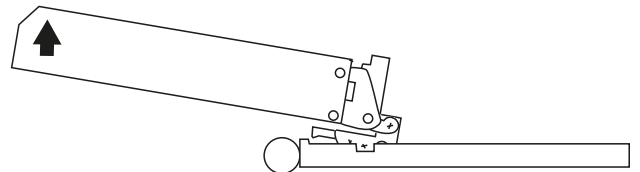
1. Press the drawer lock.



2. Pull the drawer forwards as far as it will go.

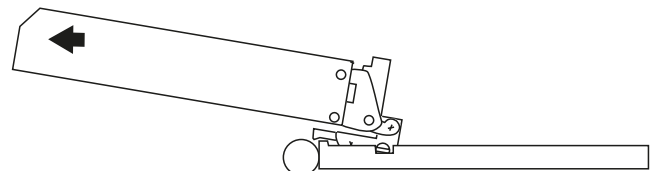


3. Slightly lift the drawer while pulling gently.

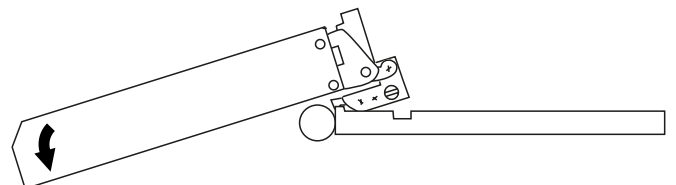


→ Drawer jumps to the next position.

4. Pull the drawer further to the second stop.



5. Tilt the drawer slightly downwards and remove the drawer with the other hand.



✓ The drawer is now removed.

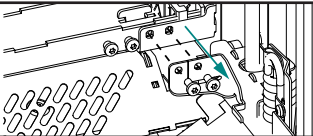
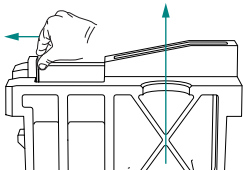
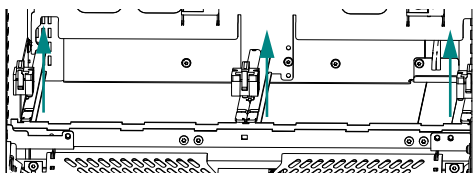
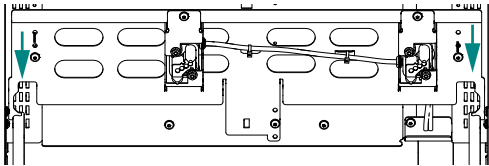
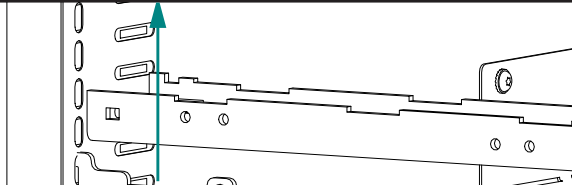
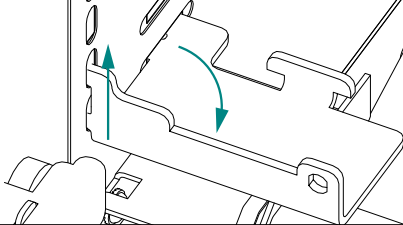
4.4.2 Removing the guide rails

In order to be able to mount a compartment/drawer at a different grid height or if space for larger products is required in the compartment/drawer below, you must remove the guide rails.

Additional equipment:

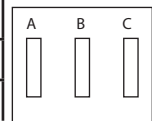
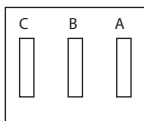
- Compartments/drawers already removed
- Screwdriver TX20

Procedure:

1. Switch off the vending machine.	
2. Loosen the cable connection on the control unit.	
3. Remove the reference mark for the lift.	
4. Remove the plastic brackets.	 
5. Remove the middle rails.	
6. Dismantle the rear panel.	
7. Remove the outer guide rods.	
8. Remove the front rail.	
9. Remove the brackets from the front rail.	
✓ Guide rail is removed.	

4.4.3 Mounting the guide rails

The rear panel of the interior of the vending machine has 3 latching rails on each side. Mount the guide rails according to the vending machine and compartment/drawer type.

Compartment/Drawer	SÜ SiLine S	SÜ SiLine M						
Spiral compartment	C	B						
Pusher drawer	A	A						

Additional equipment:

- Guide rails
- Measuring tape
- Screwdriver TX20

Procedure:

1. Switch off the vending machine.

2. Fit the brackets of the front rail.

3. Fit the front rail.

4. Fit the outer guide rods (see table).

5. Fit the rear panel.

6. Check parallelism of the height with the measuring tape.

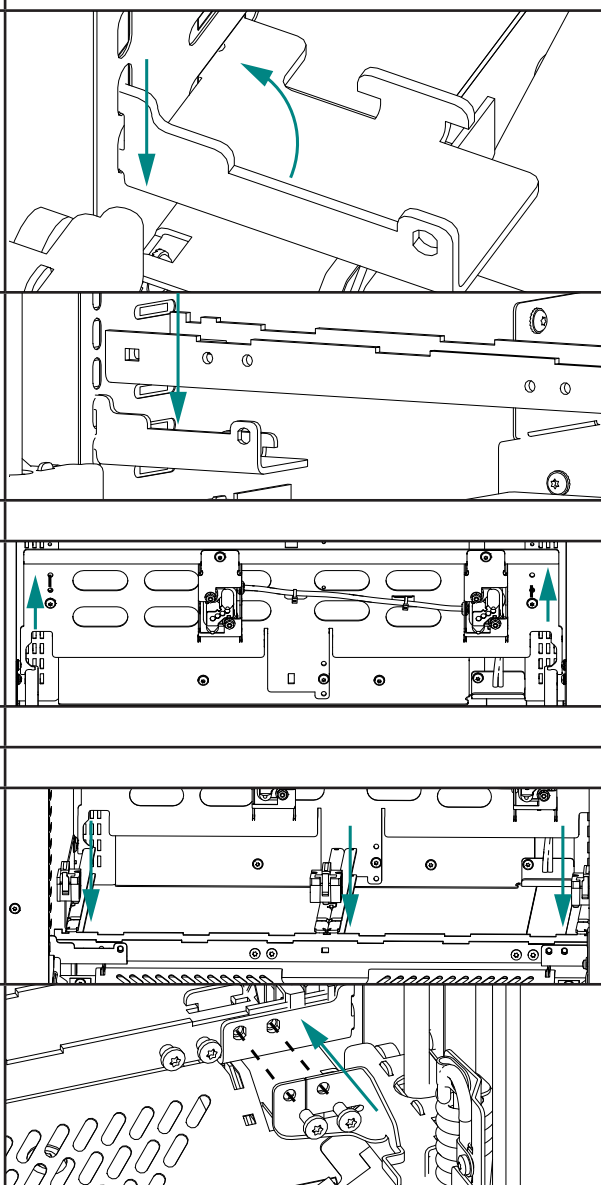
7. Fit the middle rails.

8. Fit the plastic brackets.

9. Mount the reference mark for the lift.

10. Plug in the cable connections.

✓ The guide rail is installed.



Tip

After mounting the guide rail, carry out a shelf configuration.

4.4.4 Installing the pusher drawer

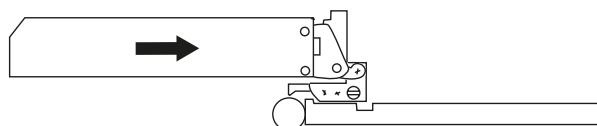
You can only fit a pusher drawer on the guide rails located in the outermost latching rail on the rear panel. You cannot combine pusher and spiral compartments on one level.

Additional equipment:

- Pusher drawers
- Mounted guide rails

Procedure:

1. Switch off the vending machine.
 2. Check the slide for correct seating.
 3. Place the drawer on the guide rails and push it backwards.
→ Drawer falls into the recess of the guide rail.
 4. Press the drawer into the vending machine as far as it will go.
→ The drawer clicks into place.
- ✓ Drawer is mounted.

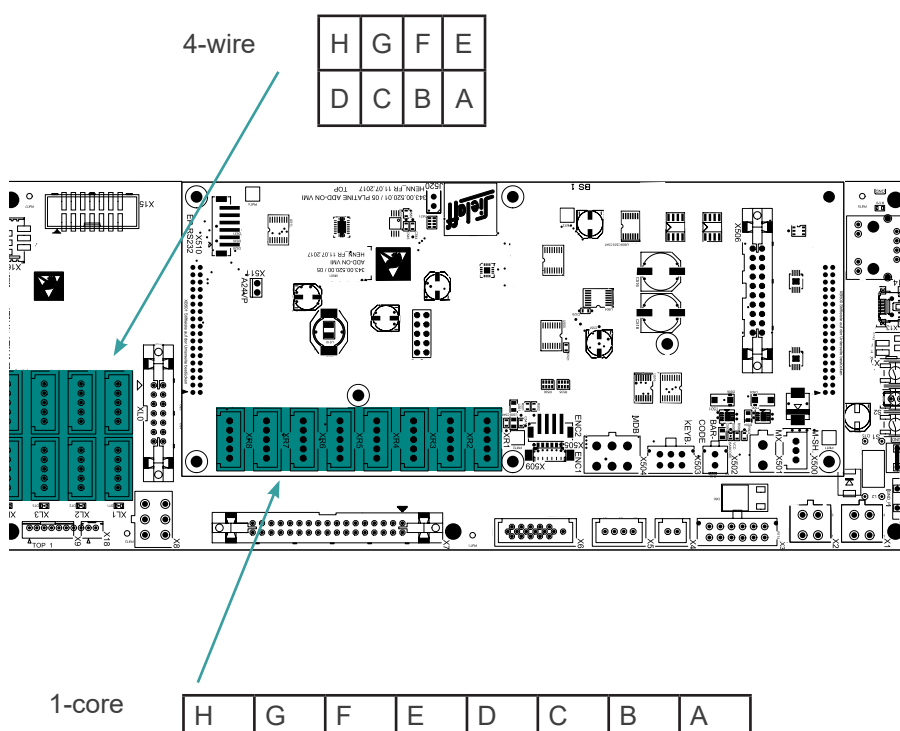


4.4.5 Connecting the pusher drawer

Drawers are connected to the control unit (VMI) in the vending machine drawer. Drawers are counted from top to bottom, starting with the letter A.

Procedure:

1. Switch off the vending machine.
 2. Pull out the drawer.
 3. Determine the pusher shelf.
 4. Connect the 4-core cable.
 5. Connect the 1-core cable.
- ✓ The pusher drawer is connected.



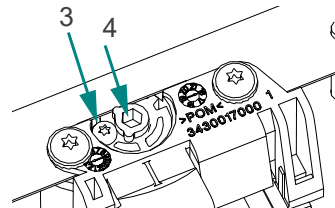
4.4.6 Removing the motor (if necessary)

Additional equipment:

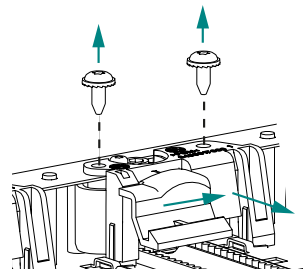
- Screwdriver TX10, TX20
- Hexagon socket screwdriver 4
- Slotted screwdriver, small

Procedure:

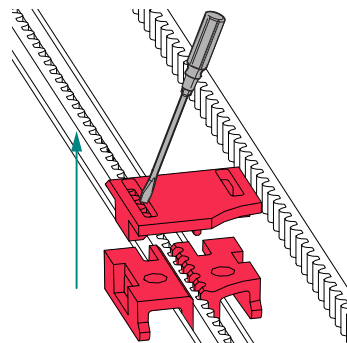
1. Disconnect the cable from the motor.
2. Turn the drawer upside down so that the bottom side is on top.
3. Loosen the locking screw (TX10).
4. Turn the belt tensioner 180° (hexagon socket screwdriver).



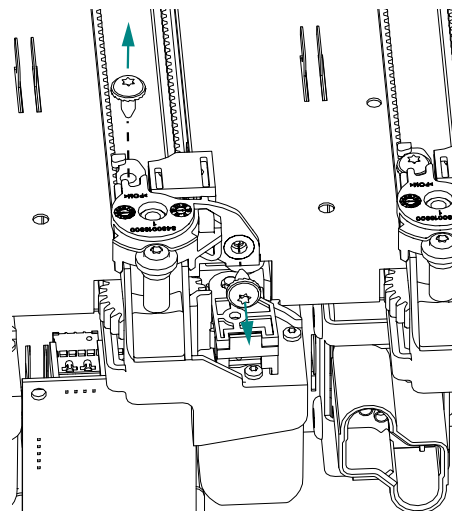
5. Remove the tape tensioner mount.



6. Dismantle the slider.



7. Remove the motor block.



✓ The motor block is removed.

4.4.7 Installing the motor

The motor in the pusher drawer is installed in reverse order to the removal of the motor.

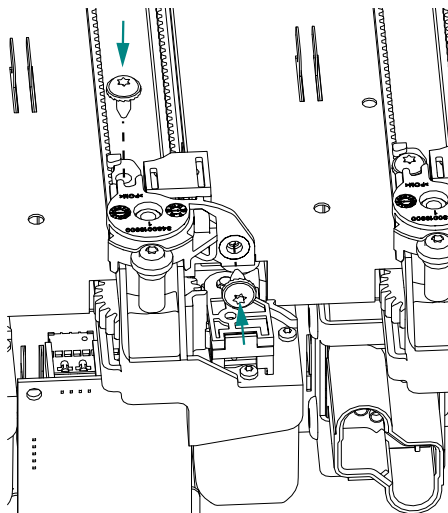
Additional equipment:

- Screwdriver TX10, TX20
- Hexagon socket screwdriver 4
- Slotted screwdriver, small

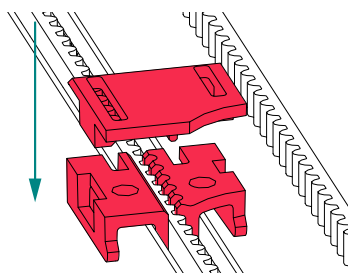
Procedure:

1. Turn the drawer upside down so that the bottom side is on top.

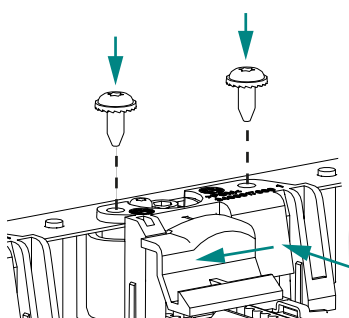
2. Fit the motor block.



3. Fit the slider.

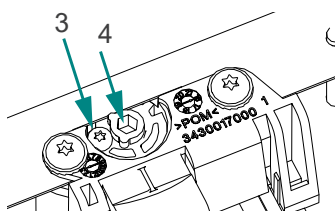


4. Fit the belt tensioner mount.



5. Turn the belt tensioner 180° (hexagon socket screwdriver).

6. Tighten the locking screw (TX10).



7. Plug in the cable connection to the motor.

- ✓ The motor is installed.

4.4.8 Pusher drawer insert

Products with a small diameter require an insert in the drawer. The insert in the drawer prevents the following product from being pushed out.

Ø	SÜ SiLine S [Number of drawer inserts]	SÜ SiLine M [Number of drawer inserts]
< 57 mm	1	2
57-63 mm	-	1
> 63 mm	-	-

Assembling the pusher drawer insert

A pusher drawer insert is mounted on the opposite side of the spring in each case. The following steps must be carried out:

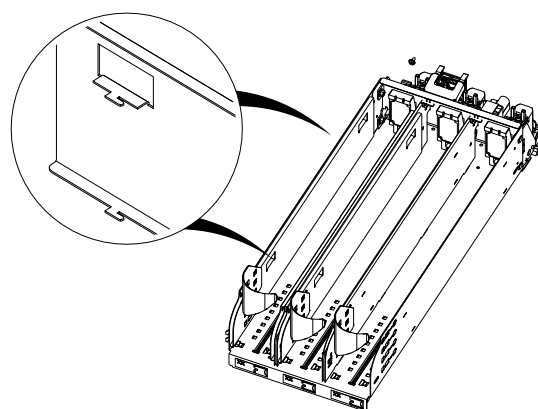
Additional equipment:

Pusher drawer without ramp

Procedure:

1. (Only for two drawer inserts) Remove the spring.
2. Slide the drawer insert onto the respective side part.
3. (Only for two drawer inserts) Fit the spring on the drawer insert.

✓ The drawer insert is mounted.

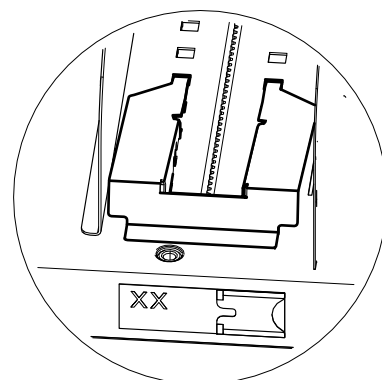


4.4.9 Installing the product ramp

The product ramp shifts the tipping point of the product to the inside of the compartment. This ensures that large products with a rectangular base (such as beverage cartons) do not collide with the glass pane. From a height of 14 cm, a ramp may also be necessary for other products.

The ramp is adjusted depending on the height of the product. The higher the product, the further back the ramp is installed in the pusher drawer.

The spring must be removed if a ramp is installed.

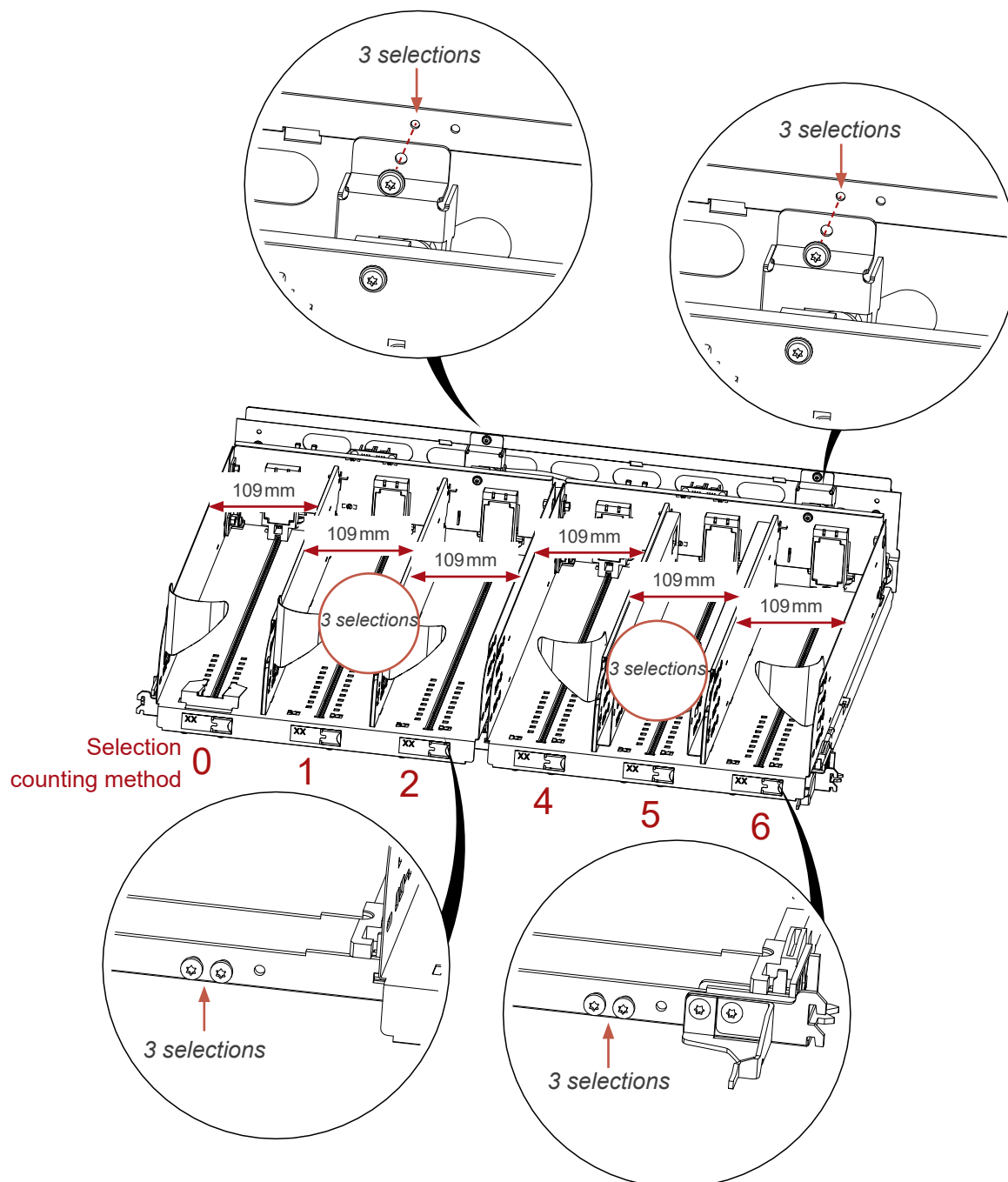


4.4.10 Only for SiLine M: 3 selection pusher drawer with 109 mm

The following combinations can be achieved in a pusher shelf:

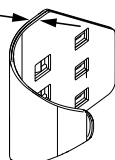
- 3 selection pusher drawer and 3 selection pusher drawer
- 4 selection pusher drawer and 3 selection pusher drawer

4.4.10.1 Example: 3 selection pusher drawer and 3 selection pusher drawer

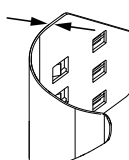


If product retainers are used, the actual (usable) width of the drawer is smaller:

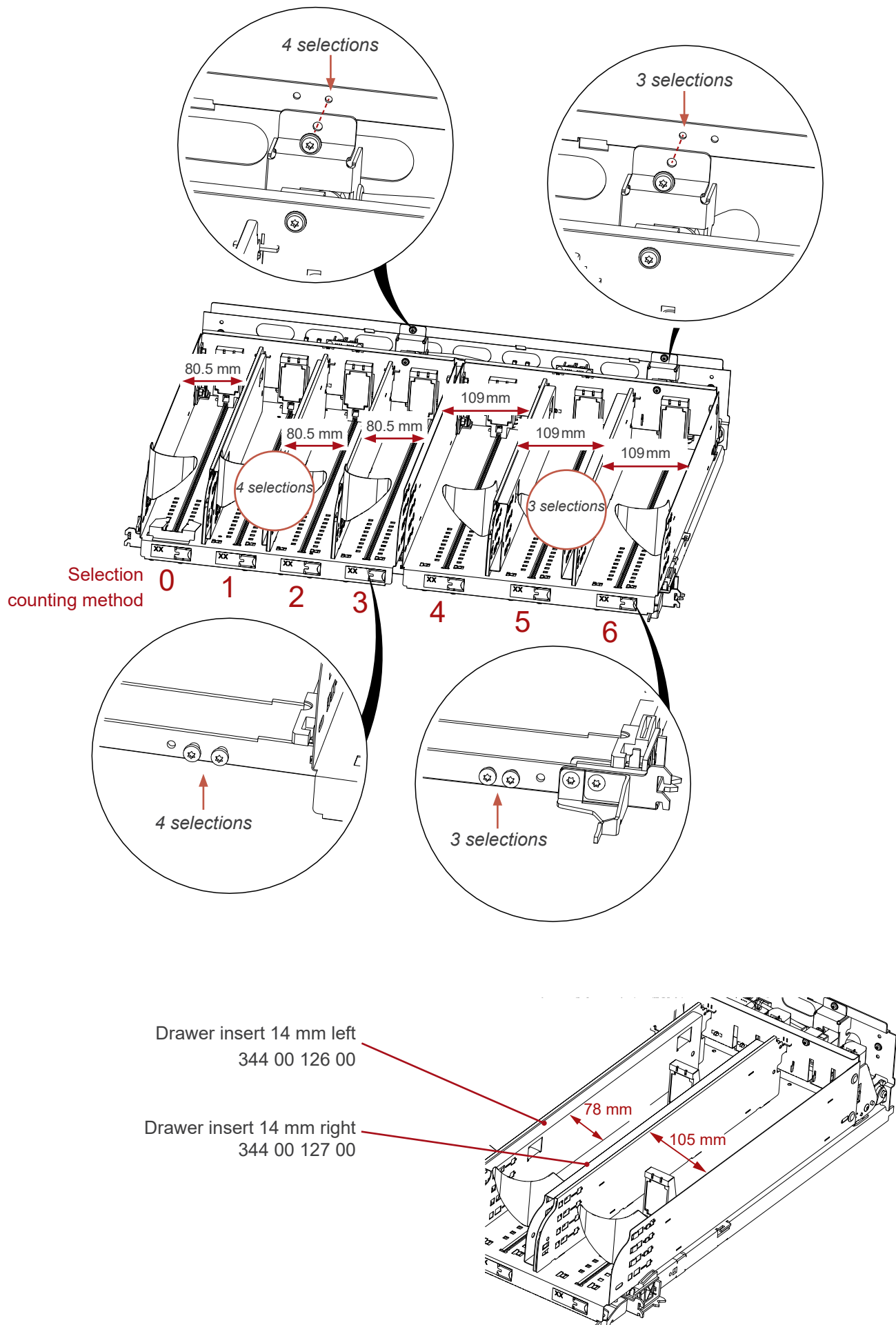
Double product retainer minus 3.2 mm



Single product retainer minus 1.3 mm



4.4.10.2 Example: 4 selection pusher drawer and 3 selection pusher drawer

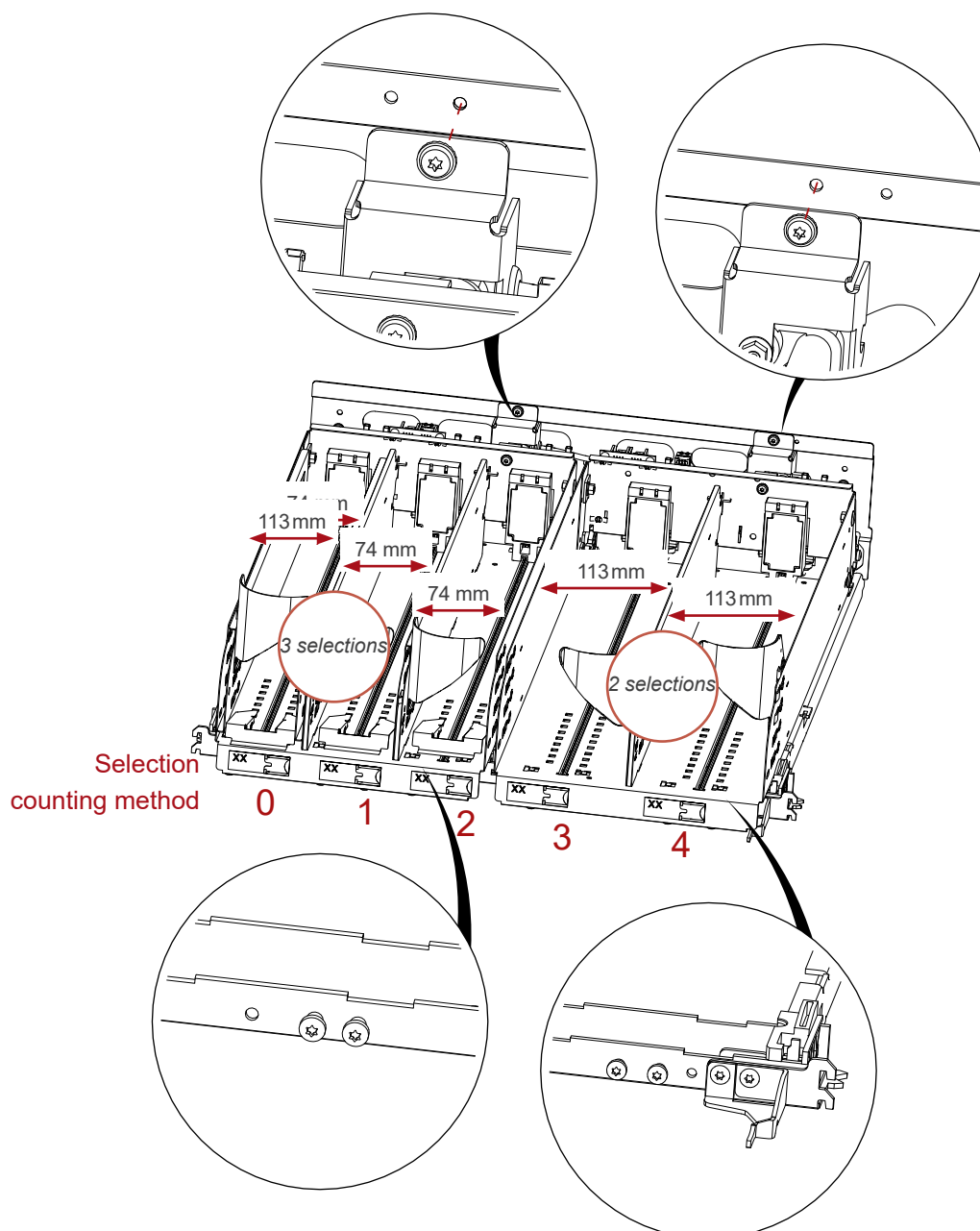


4.4.11 Only for SiLine S: 2 selection pusher drawer with 113 mm

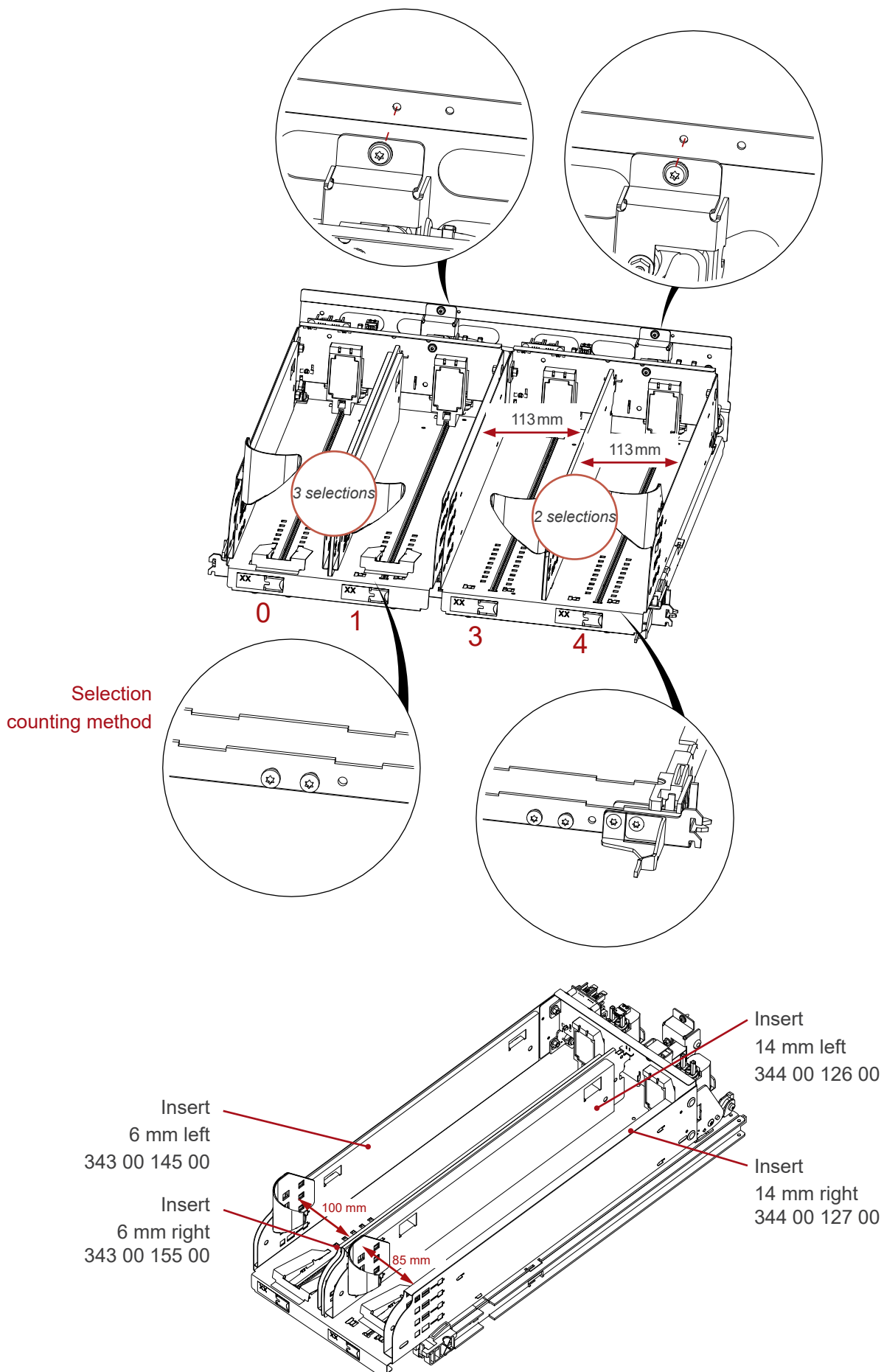
The following combinations can be achieved in a pusher shelf:

- 3 selection pusher drawer and 2 selection pusher drawer
- 2 selection pusher drawer and 2 selection pusher drawer

4.4.11.1 Example: 3 selection pusher drawer and 2 selection pusher drawer



4.4.11.2 Example: 2 selection pusher drawer and 2 selection pusher drawer



4.4.12 Repairing the latching function (pusher drawer)

In the case of pusher drawers compartments with optional electronic shelf labelling, wear of the latch can cause problems when the drawer engages in the vending machine. On the underside of the drawer there are several bearing mounts with latch (344 70 125 00) and belt deflection. However, only the component on the outside right is used to lock the drawer. In the event of a malfunction, the component on the right can be replaced with any other component in the drawer.

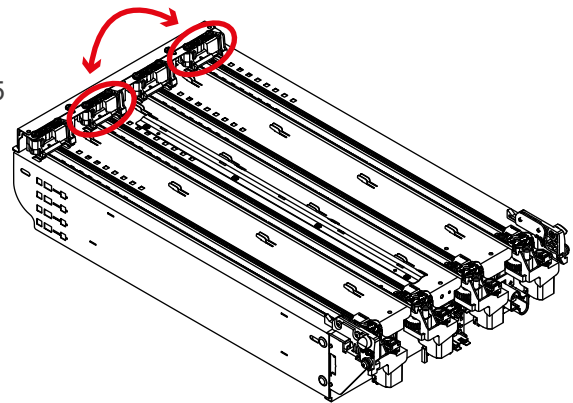
Additional equipment:

- TX 20 bit

Procedure:

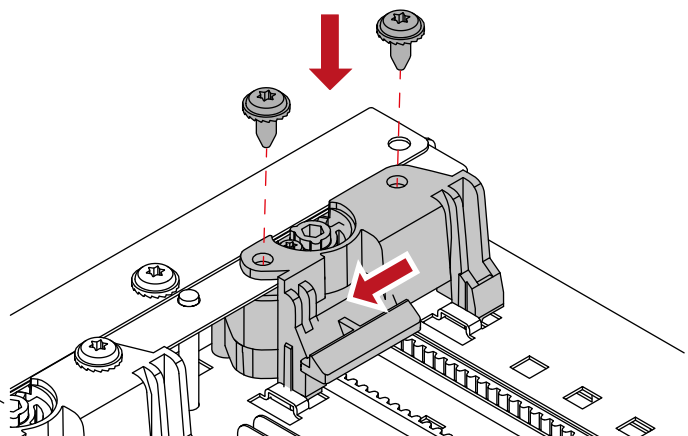
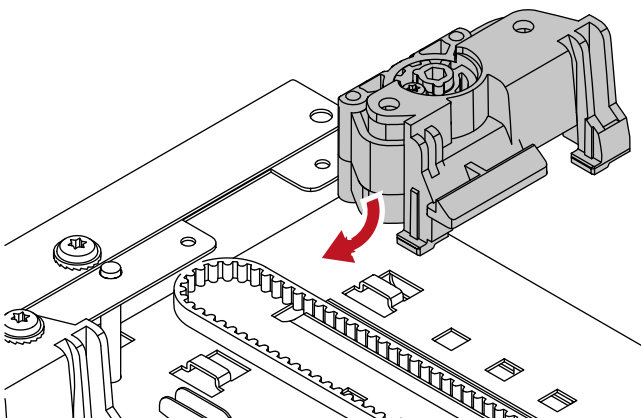
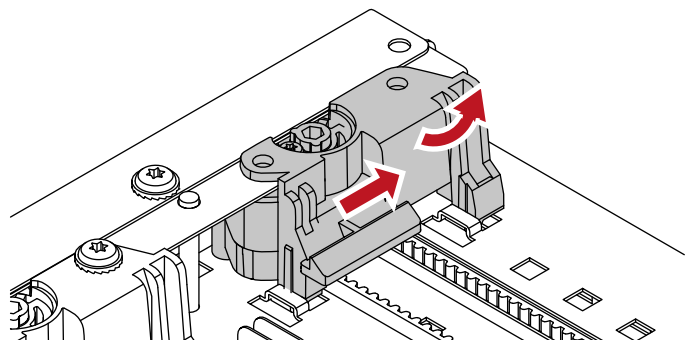
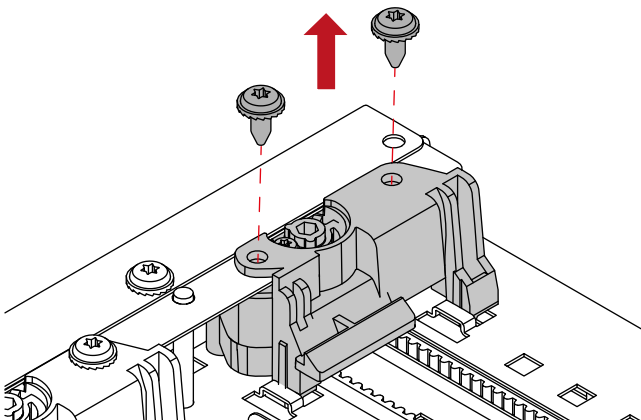
1. Remove the drawer and turn the underside upwards.
2. Loosen the screws of the right-hand bearing mount and any other bearing mount.
3. Press the bearing mounts to the right and remove upwards in an inclined direction.
4. Swap components with each other.
5. Place the belt over the idler pulley in the bearing mounts.
6. Insert the bearing mounts downwards at an inclined angle and press to the left.
7. Fit the screws.
8. Insert the drawer.
9. Check the engagement function.

- ✓ Bearing mounts with detent have been replaced and engagement is possible.



Note

When inserting the bearing mounts, ensure that the belt is correctly positioned on the gear wheel and is not twisted or jammed.



4.5 Configuring the spiral compartment

Compartments can be removed and reinstalled elsewhere in the vending machine. In addition, each spiral can be rotated, swapped and coupled with other spirals.

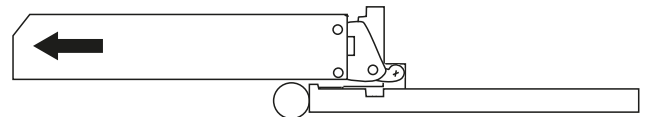
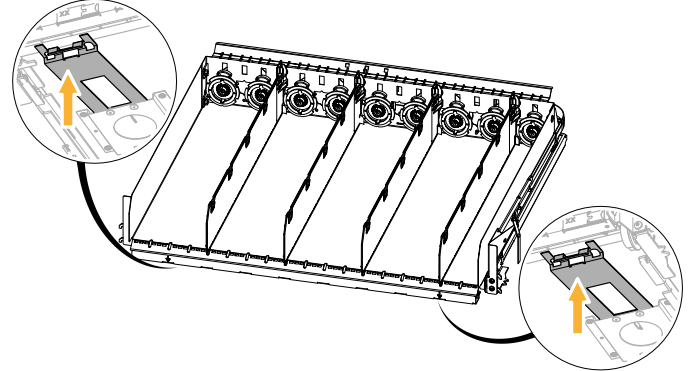
4.5.1 Removing the spiral compartment

For maintenance and conversion work, you must remove the spiral compartment.

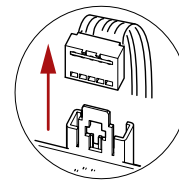
To do this, proceed as follows:

1. Press the lock at the bottom of the compartment and pull the compartment forwards as far as it will go.

SÜ SiLine M

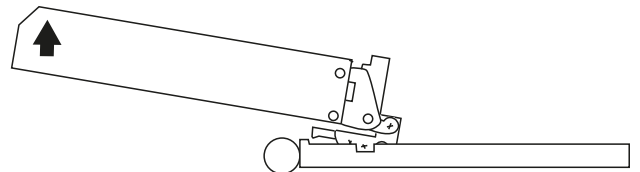


2. Loosen the cable connection and remove the cable from the bracket on the compartment.



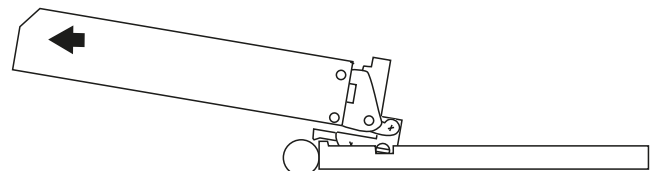
→ The cable jumps back to the vending machine wall.

3. Slightly lift the compartment while pulling gently.

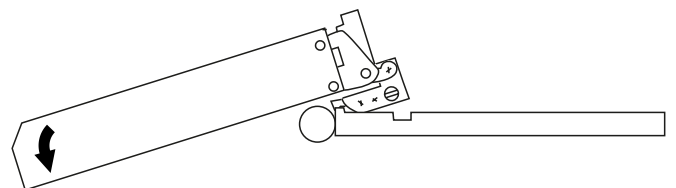


→ Compartment jumps to the next position.

4. Pull the compartment further to the second stop.



5. Tilt the compartment slightly downwards and remove the compartment with the other hand.



✓ The compartment is now removed.

4.5.2 Inclining the spiral compartment

The compartments can be tilted. The tilt mechanism for spiral compartments is locked at the factory.



Caution!
Products can fall out when the compartment is tilted.
Do not use the tilt mechanism with glass bottles or compartments with ramps.

	Mechanism blocked	Mechanism released

4.5.3 Removing the guide rails

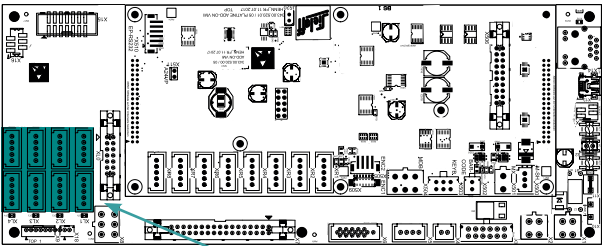
In order to be able to mount a compartment/drawer at a different grid height or if space for larger products is required in the compartment/drawer below, you must remove the guide rails.

Additional equipment:

- Compartments already removed
- Screwdriver TX20

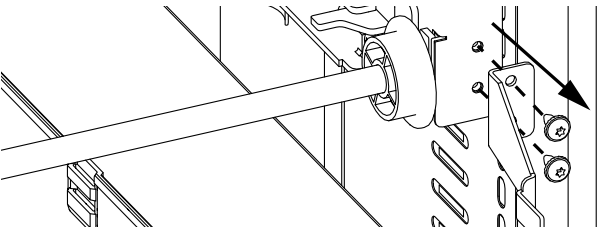
Procedure:

1. Switch off the vending machine.
2. Loosen the cable connection on the control unit.

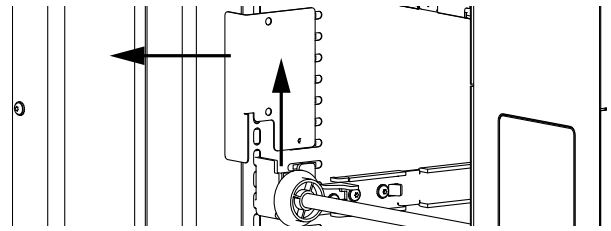


H	G	F	E
D	C	B	A

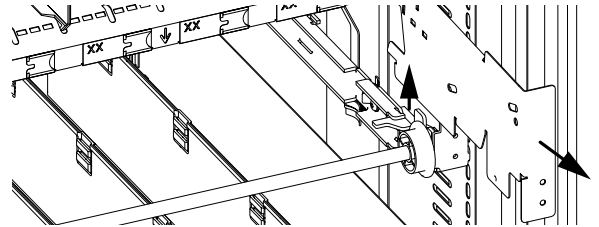
3. Remove the reference mark for the lift.



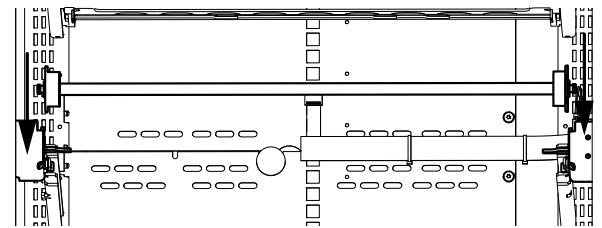
4. Remove the panel on the left.



5. Remove the panel on the right.



6. Remove the bearing axle with rollers.



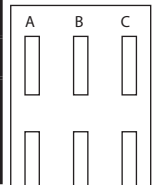
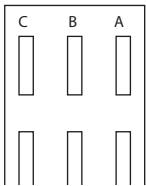
7. Remove the side guides.

8. Remove the guide holder.

✓ The compartment/drawer is now removed.

4.5.4 Mounting the guide rails

The rear panel of the interior of the vending machine has 3 latching rails on each side. Mount the guide rails according to the vending machine and compartment/drawer type.

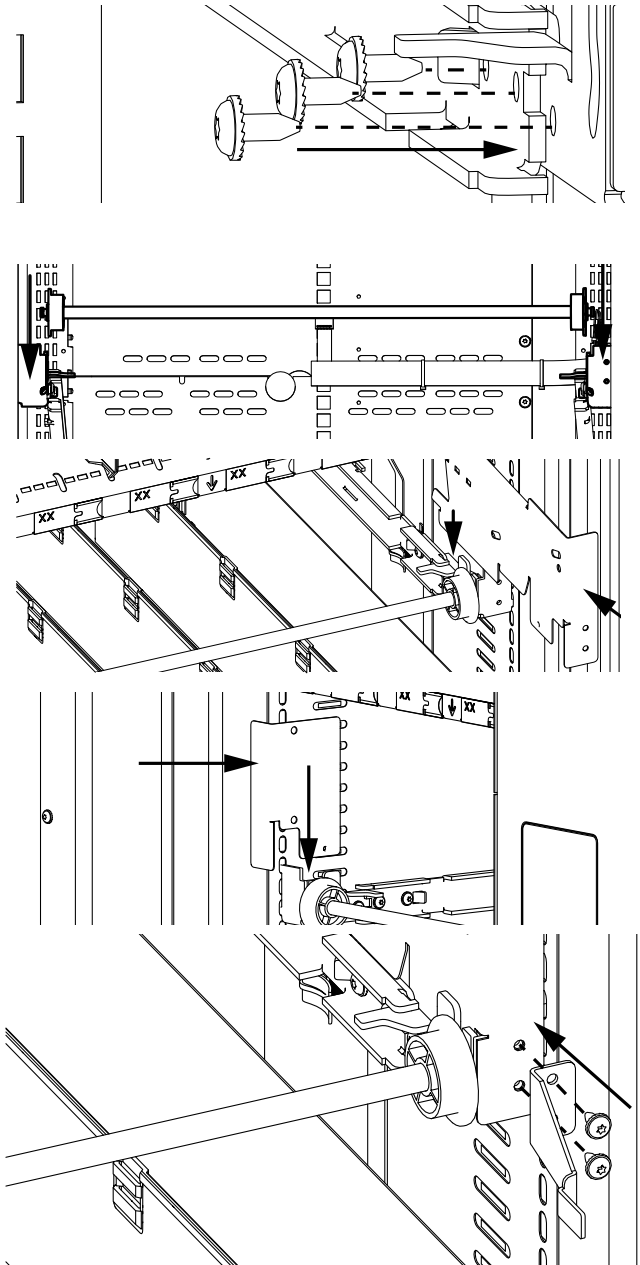
Drawer	SÜ SiLine S	SÜ SiLine M						
Spiral compartment	C	B						
Pusher drawer	A	A						

Additional equipment:

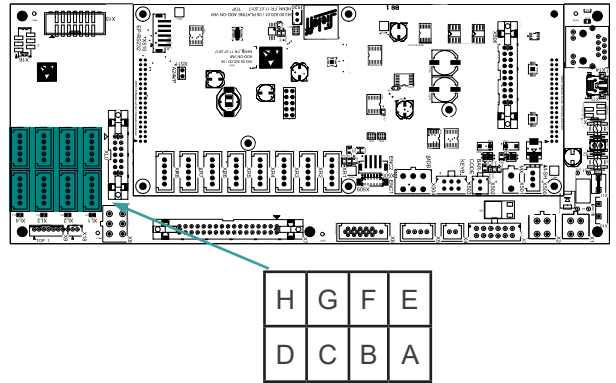
- Guide rails
- Measuring tape
- Screwdriver TX20

Procedure:

1. Switch off the vending machine.
2. Fit the guide holder on the left and right.
3. Fit the side guides (see table).
4. Check parallelism of the height with the measuring tape.
5. Install the bearing axle with rollers.
6. Fit the cover on the right.
7. Fit the cover on the left.
8. Mount the reference mark for the lift.



9. Plug the cable connections to the control unit.



- ✓ The guide rail is installed.



Tip

After mounting the guide rail, carry out a shelf configuration.
On the HMI, select Products/Shelf Configuration/Shelf Configuration.

4.5.5 Installing the spiral compartment

You cannot combine pusher and spiral compartments on one level.

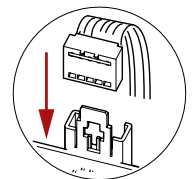
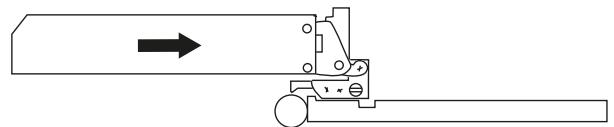
Additional equipment:

- Spiral compartment
- Mounted guide rails

Procedure:

1. Switch off the vending machine.
2. Check the slide for correct seating.
3. Position the compartment at an angle to the recesses in the guide rail.
4. Push the compartment slightly backwards.
5. Place the compartment on the guide rails.
6. (Only for spiral compartments) Connect the cable and lay it on the compartment bracket.
7. Push the compartment into the vending machine as far as it will go

- ✓ The compartment is installed.



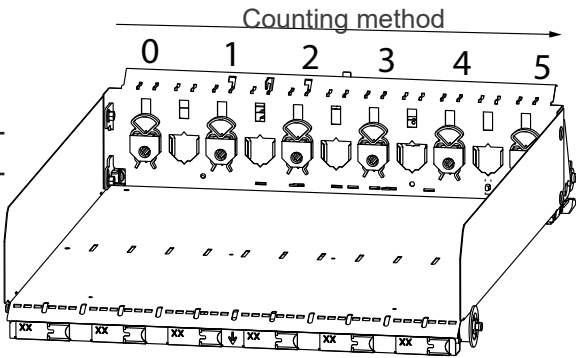
4.5.6 Wiring the spiral compartment

Motors are connected to the control board of the spiral compartment according to the direction of rotation.

Clockwise rotating motors	XMR#
Counterclockwise rotating motors	XML#
Twin motor	XML#

stands for the container number.

Only one output may be assigned per compartment number. If XMR0 is occupied by a plug, then XML0 must not be occupied.



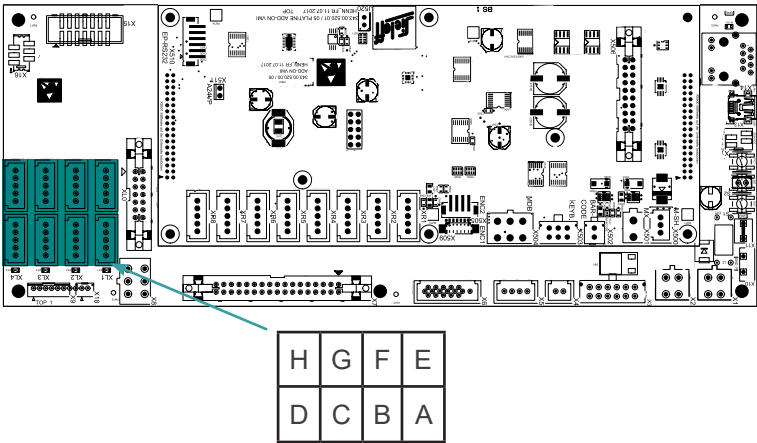
4.5.7 Connecting the spiral compartment

Compartments are connected to the control unit (VMI) in the telescopic door of the vending machine.

Compartments are counted from top to bottom, starting with the letter A.

Procedure:

- 1. Switch off the vending machine.
 - 2. Pull out the telescopic door.
 - 3. Determine the pusher shelf.
 - 4. Connect the ribbon cable.
- ✓ The spiral compartment is connected.



4.5.7.1 Selecting the spiral

Several factors determine the number of turns of the spirals.



Note
Rigid products must not exceed an area diagonal of 210 mm.

4.6 Unhooking/inserting the telescopic door

The telescopic door can be detached for repair work. This does not take long to do.

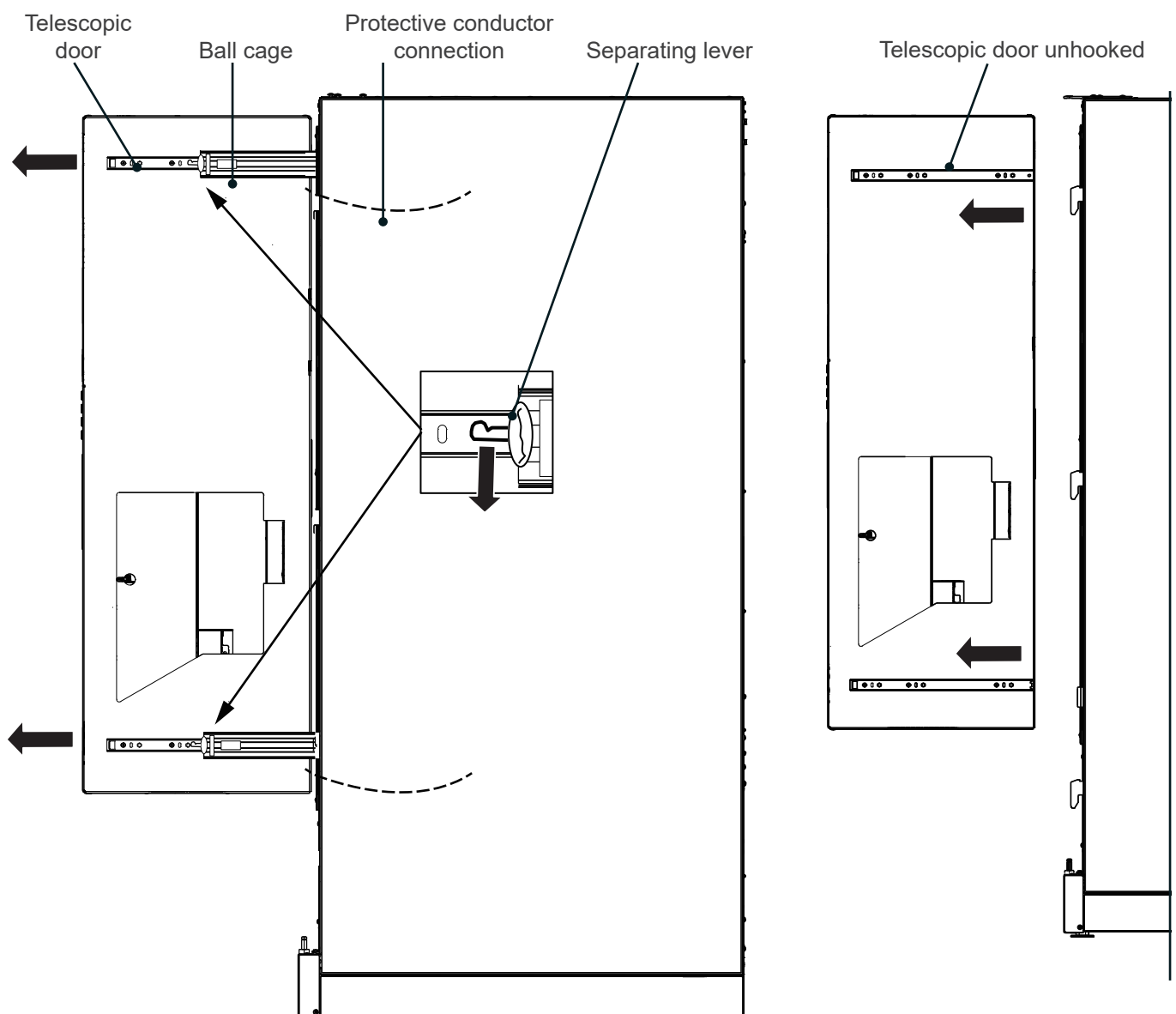
1. Switch off the vending machine.
2. Disconnect the electrical cables from the telescopic door.
3. Remove the protective conductor connections.
4. Pull out the telescopic door as far as it will go.
5. Press the separating lever (top and bottom).
6. Pull the telescopic door out. Hold or secure the telescopic door sufficiently.

✓ The telescopic door is detached

Inserting the telescopic door

1. Pull the ball cage forward to the stop.
2. Insert the telescopic door with the two fixed rails into the pulled-out rails and ball cages. Make sure that the ball cage does not slide away to the rear, but that the rail is inserted into it.
3. Attach the cable connections.

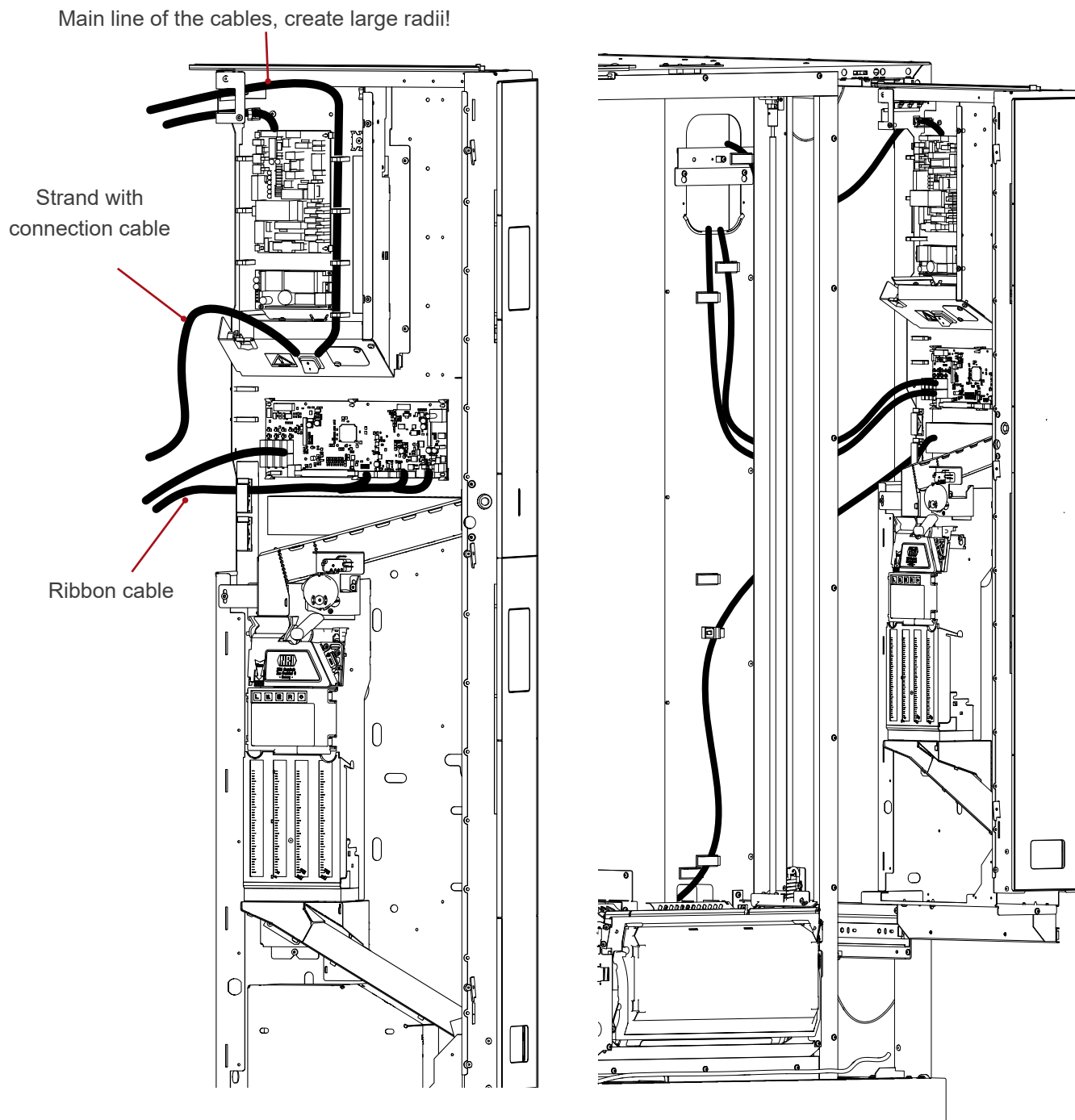
✓ The telescopic door is inserted.



Telescopic door: cable routing

The cables from the vending machine to the telescopic door must be routed in large loops and through strain reliefs.

Ensure that the cables are laid without kinks and that they do not get caught and are not subjected to tension.



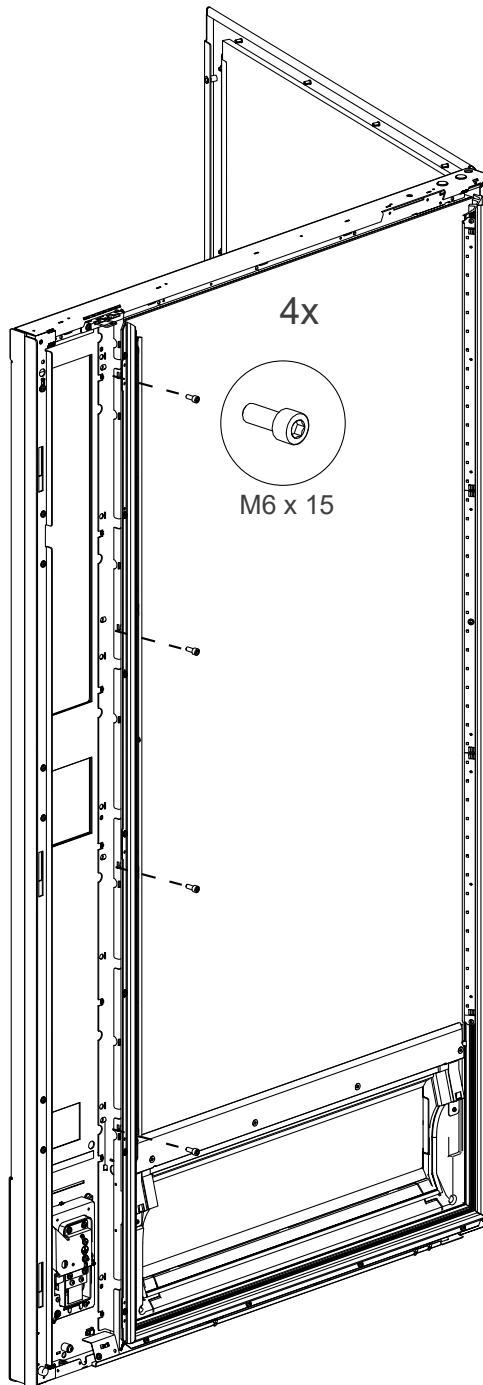
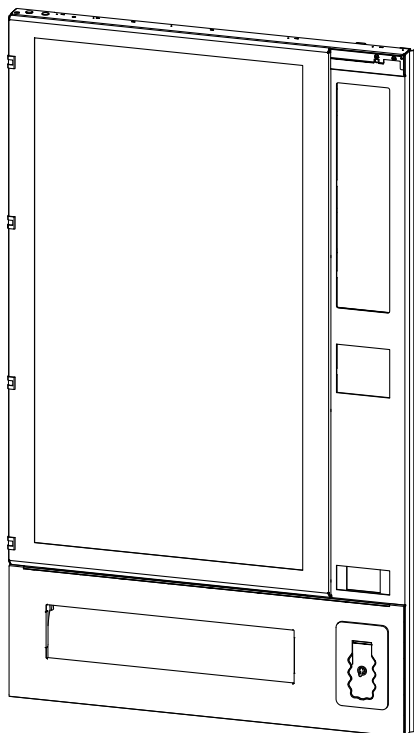
4.7 Opening the impact protection (optional)

Requirements

Hexagon 5 mm

Procedure

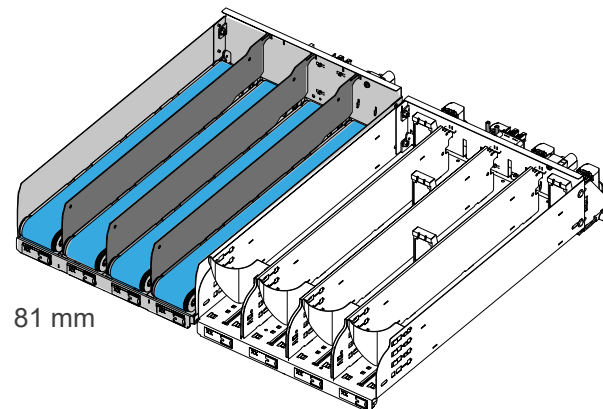
1. *Remove the hexagon socket screw*
 2. *Swing open the impact protection*
- ✓ The discs can be cleaned on the inside



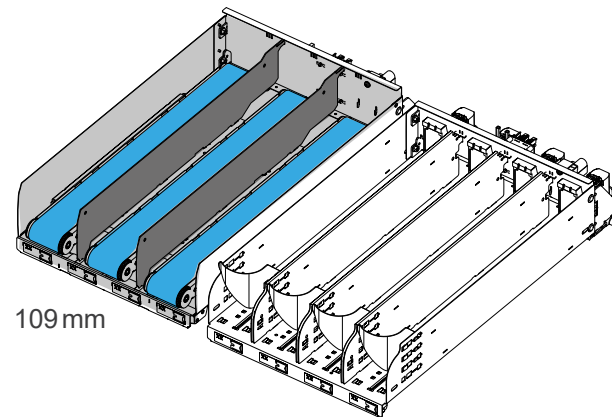
4.8 Belt drawers

4.8.1 Use variants

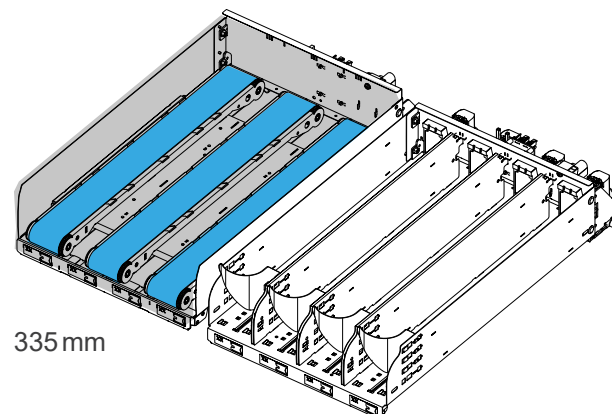
Belt drawer
4 selections



Belt drawer
after conversion
3 selections



Belt drawer
after conversion
3 selections without partition
(e.g. egg carton)

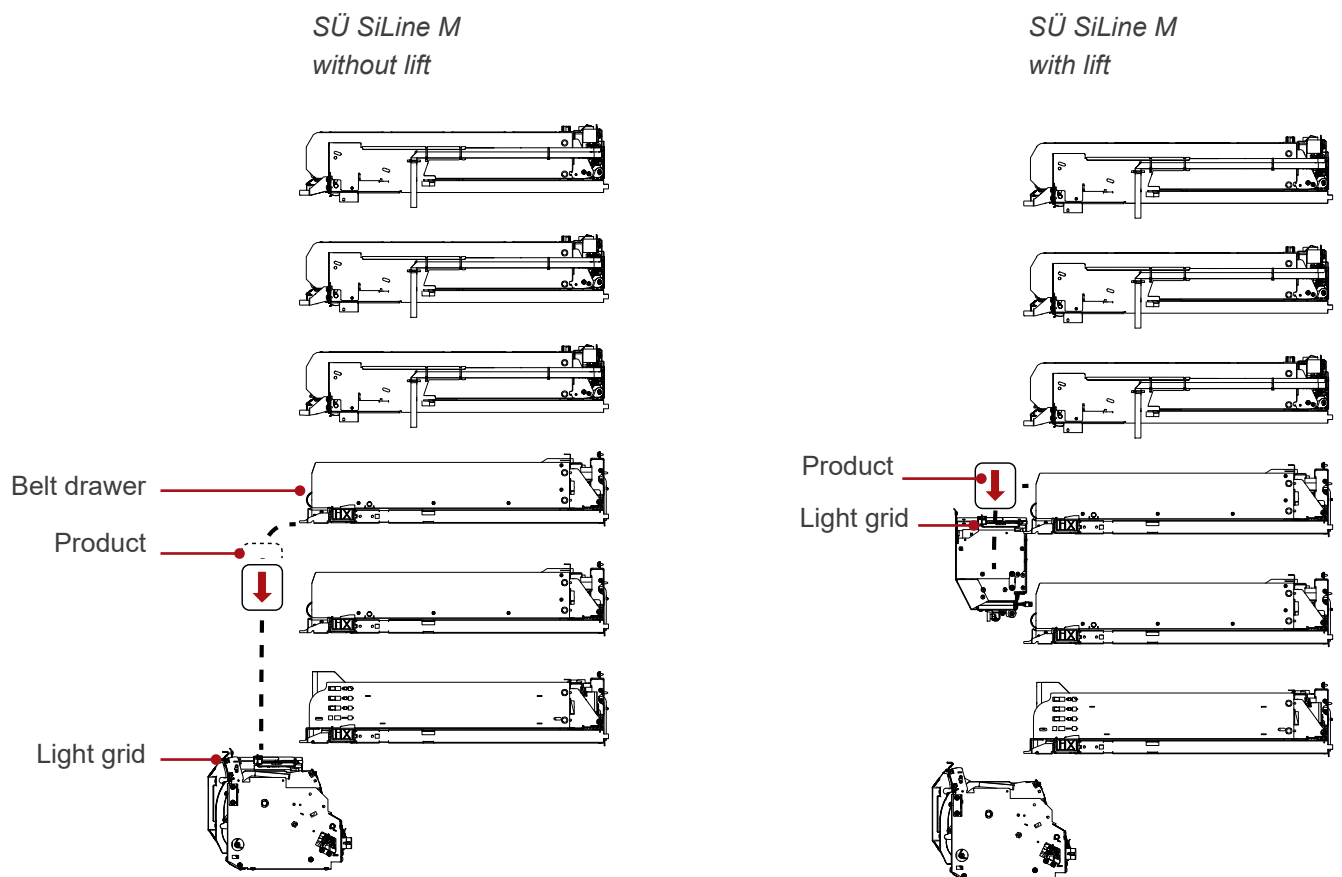


TIP

The process of converting a belt drawer, 4 selections to a belt drawer, 3 selections is described in the document with part no. 344 00 960 00.

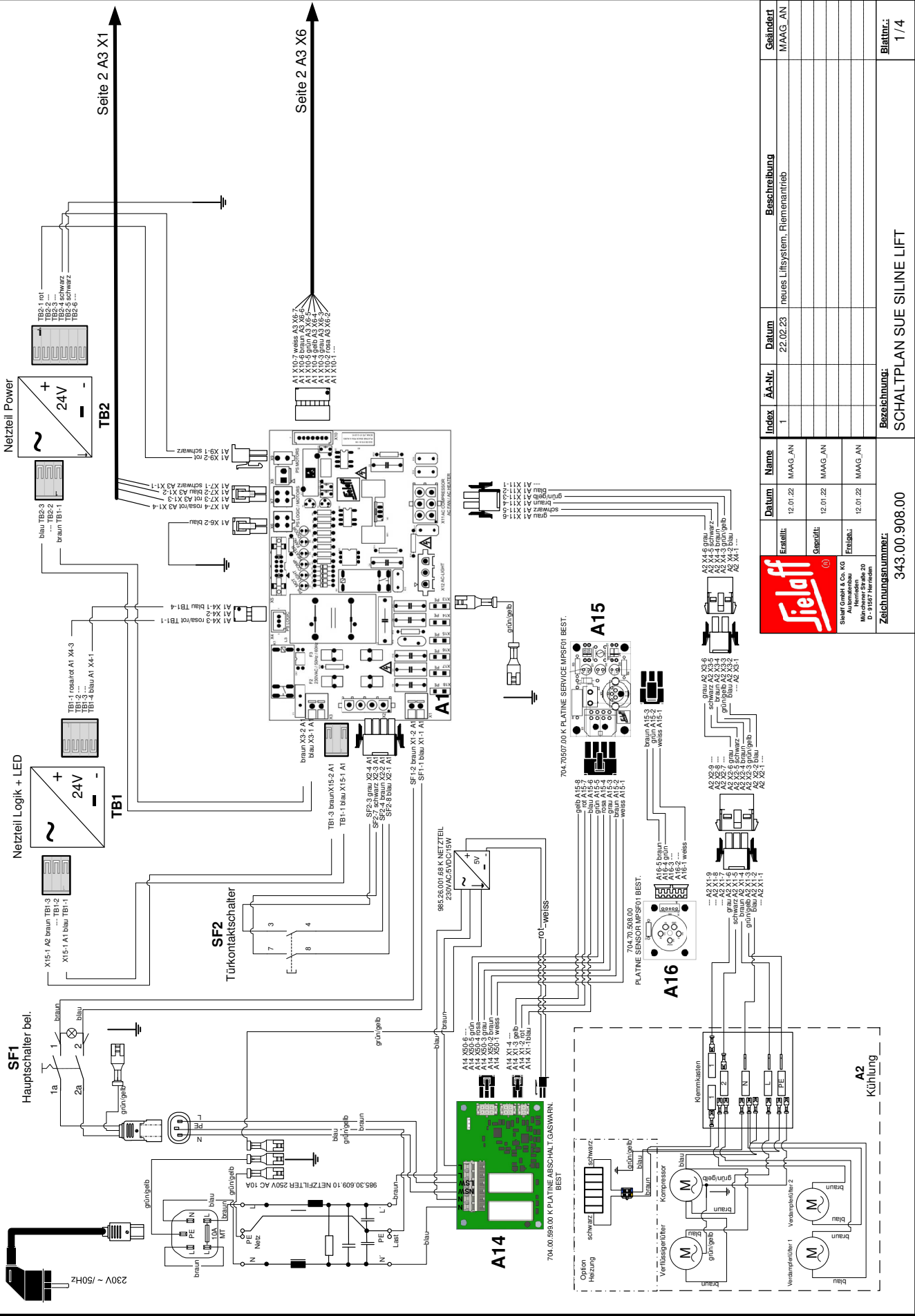
4.8.2 Operating principle

- If a selection is to be dispensed, the corresponding motor is activated. The blue belt transports all products in the drawer forwards until the frontmost product falls. When the product crosses the light grid, the motor stops. The belt moves in the opposite direction for a brief moment so that the frontmost product stops safely.
- Two products may be dispensed if the products dispensed from the belt drawer are too small. The spiral compartment is designed for these products.

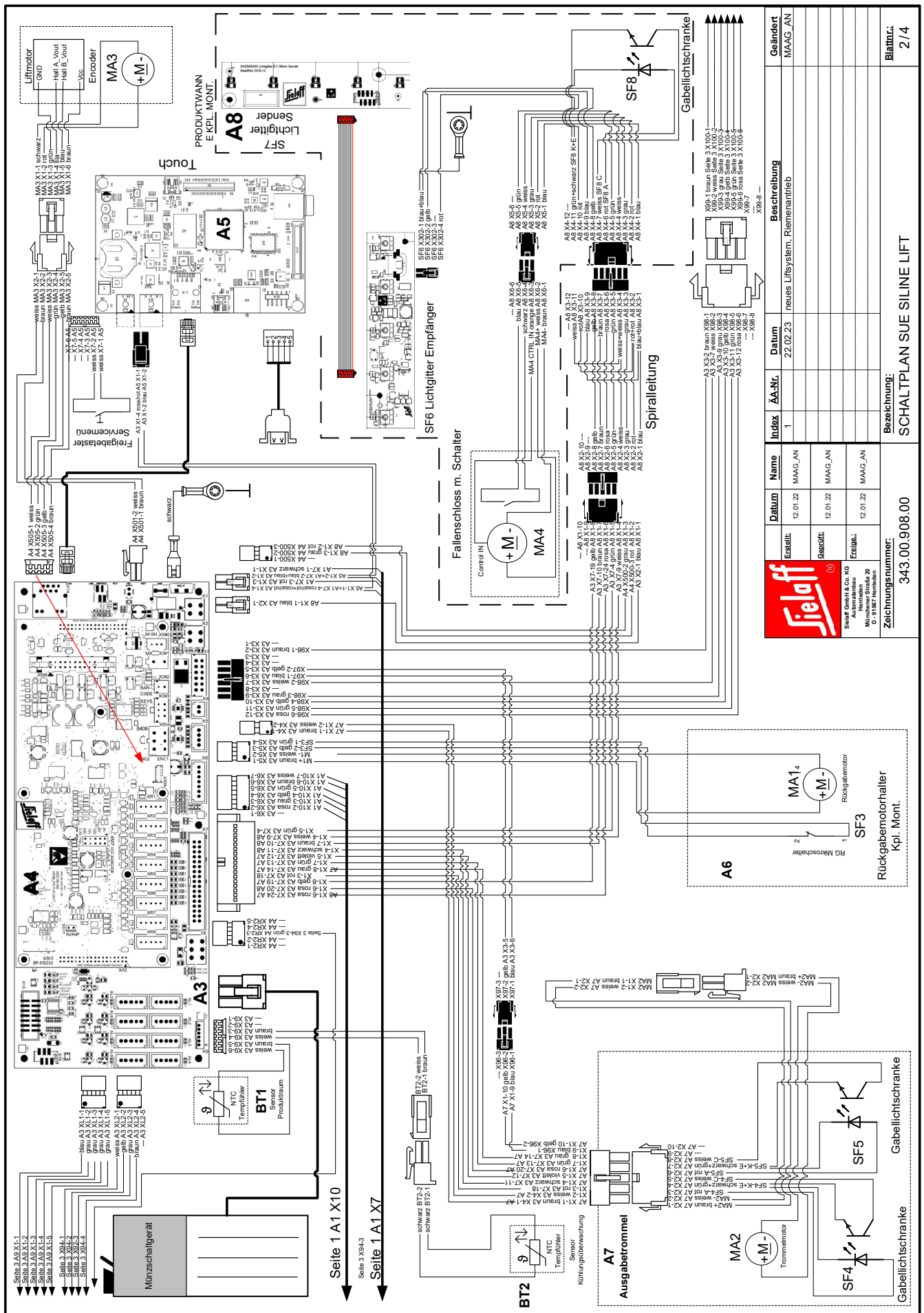


4.9 Wiring diagrams

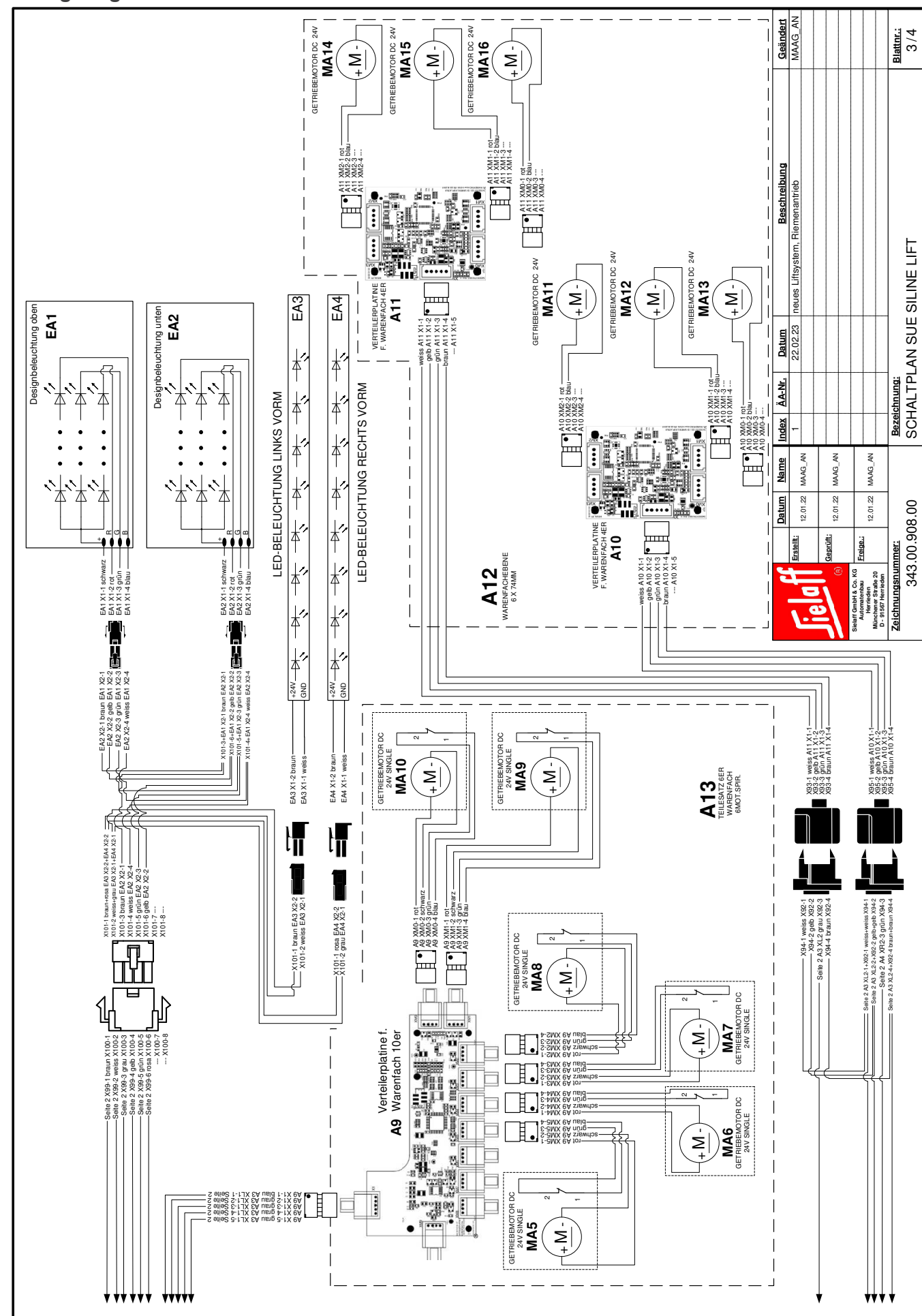
4.9.1 Wiring diagram – SÜ SiLine with lift



Wiring diagram – SÜ SiLine with lift



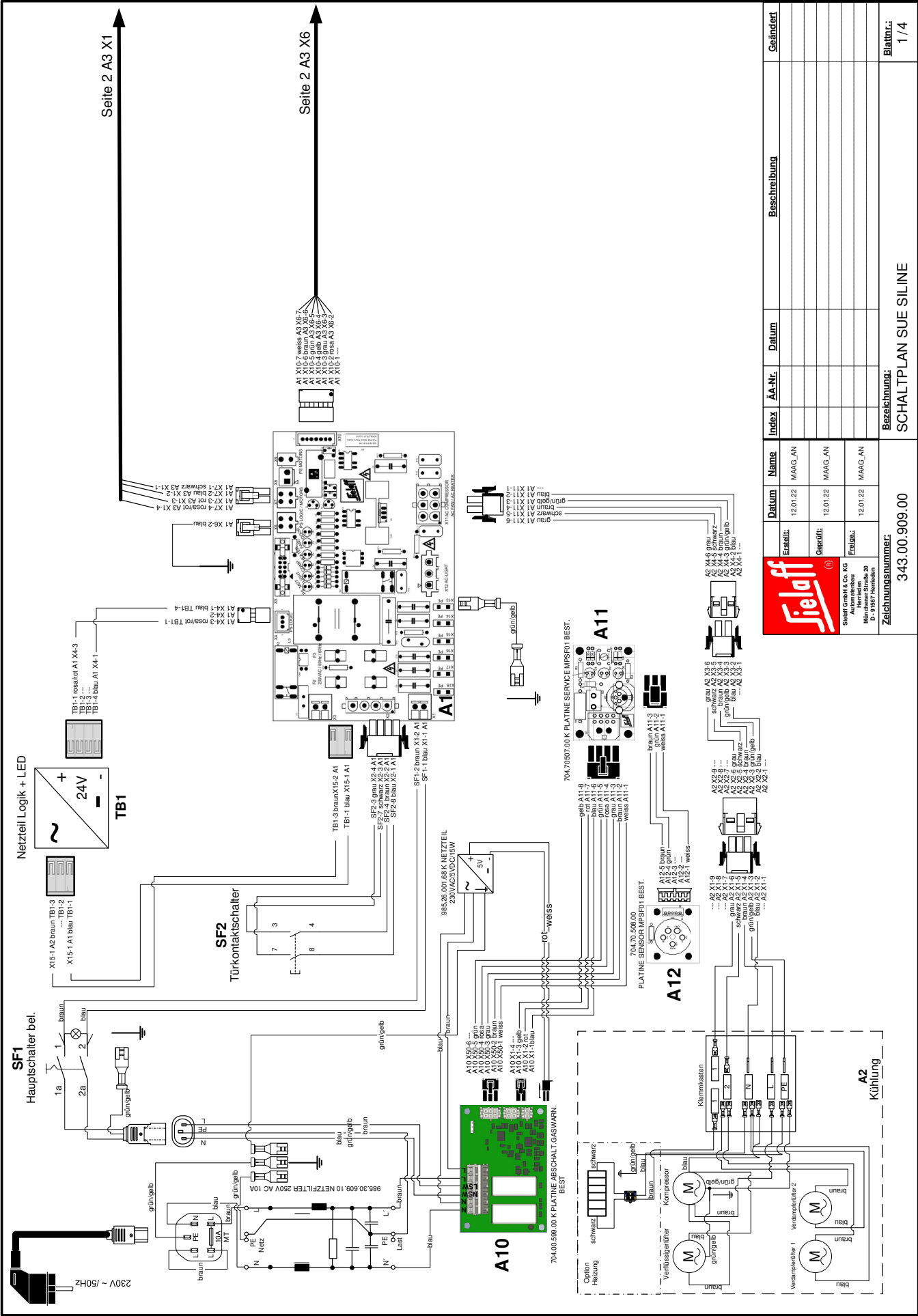
344 66 020 00 061



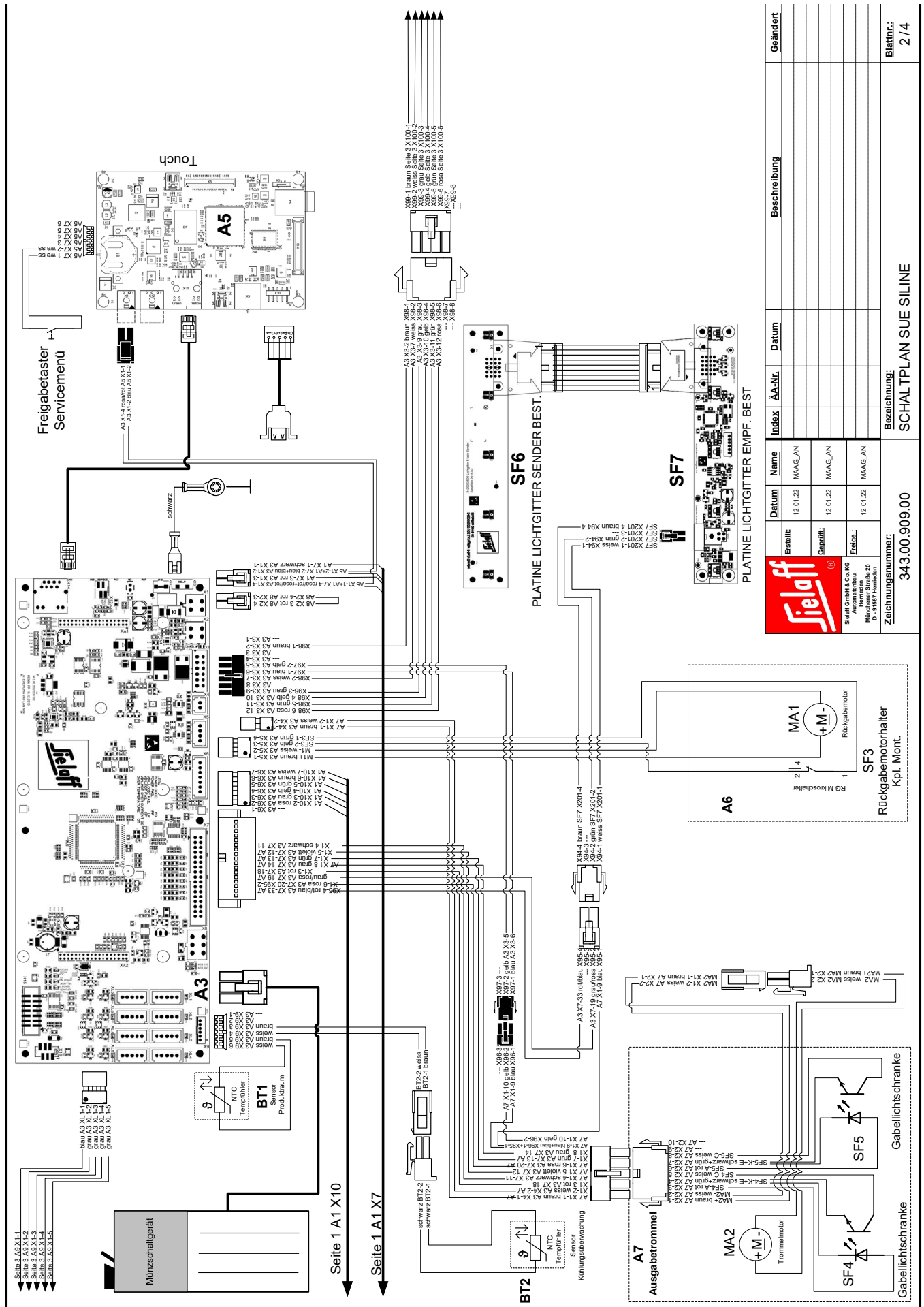
Komponente	Sielaff Artikelnummer
A1	343.00.515.00 M PLATINE SNACK PDU 4 AUSG. KPL. BEST
A2	343.00.504.00 M KUEHLUNG SKA 740 KPL MONT SILINE
A3	343.00.502.00 K STEUERUNG VMI LAN MIN KPL. BEST
A4	343.00.520.00 K PLATINE ADD-ON VMI KPL. BEST.
A5	414.01.555.00 M DISPLAY KPL. MONT. HMI
A6	343.01.233.00 M RUECKGABEMOTORHALTER KPL. MONT.
A7	343.03.066.00 M AUSGABE KPL. MONT.
A8	PRODUKTWANNE KPL. MONT.
A9	344.00.510.00 K VERTEILERPLATINE F. WARENFACH 10ER
A10	343.00.517.00 K VERTEILERPLATINE F. WARENFACH 4ER
A11	343.00.517.00 K VERTEILERPLATINE F. WARENFACH 4ER
A12	343.02.120.00 M WARENFACHEBENE 6 X 74MM
A13	343.12.100.00 M TELESATZ 6ER WARENFACH 6MOT.SPIR.
A14	704.00.599.00 K PLATINE ABSCHALT.GASWARN. BEST
A15	704.70507.00 K PLATINE SERVICE MP SF01 BEST.
A16	704.70.508.00 PLATINE SENSOR MP SF01 BEST.
MA1	985.27.035.68 K GETRIEBEMOTOR DC 18V M. ZAHNRAD
MA2	343.00.544.00 M ANTRIEBSMOTOR F. AUSGABE VORM.

	Exaktl:	Datum	Name	Index	AAn-Nr.	Datum	Beschreibung	Geändert
		12.01.22	MAAG, AN	1		22.02.23	neues Liftsystem, Riemenantrieb	MAAG, AN
	Geprüf:	12.01.22	MAAG, AN					
	Freigib:	12.01.22	MAAG, AN					
	Sielfff GmbH & Co. KG Herrendamm 20 Mönchengladbach D-41067 Herrendamm							
Zeichnungsnummer:		Bezeichnung: SCHALTPLAN SUE SILINE LIFT						
343.00.908.00		Blattanz.: 4 / 4						

4.9.2 Wiring diagram – SÜ SiLine without lift



Wiring diagram – SÜ SiLine without lift



[illegible]

Komponente	Sielaff Artikelnummer
A1	343.00.515.00 M PLATINE SNACK PDU 4 AUSG. KPL. BEST
A2	343.00.504.00 M KUEHLUNG SKA 740 KPL MONT SILINE
A3	343.00.502.00 K STEUERUNG VMI LAN MIN KPL. BEST
A5	414.01.555.00 M DISPLAY KPL. MONT. HMI
A6	343.01.233.00 M RUECKGABEMOTORHALTER KPL. MONT.
A7	343.03.086.00 M AUSGABE KPL. MONT.
A9	344.00.510.00 K VERTEILERPLATINE F. WARENFACH 10ER
A10	704.00.599.00 K PLATINE ABSCHALT.GASWARN. BEST
A11	704.70507.00 K PLATINE SERVICE MP5F01 BEST.
A12	704.70.508.00 PLATINE SENSOR MP5F01 BEST.
A13	343.12.100.00 M TEILESA TZ 6ER WARENFACH 6MOT.SPIR.
MA1	985.27.035.68 K GETRIEBEMOTOR DC. 18V M. ZAHNRAD
MA2	343.00.544.00 M ANTRIEBSMOTOR F. AUSGABE VORM.

Komponente	Sielaff Artikelnummer
SF1	985.14.290.29 K WIPPSCHALTER BEL. SNAP-IN 2 POL
SF2	985.14.065.27 K SICHERHEITS-TRENNSCHALTER SNAP-IN
SF3	985.14.060.20 K MIKROSCHALTER WECHSLER
SF4	985.55.340.00 K LICHTSCHRANKE
SF5	985.55.340.00 K LICHTSCHRANKE
SF6	343.00.525.00 K PLATINE LICHTGITTER SENDEK BEST
SF7	343.00.524.00 K PLATINE LICHTGITTER EMPF. BEST.
TB1	985.26.001.53 K NETZTEIL 230VAC 24VDC 120W
BT1	985.15.430.12 K HEISSLEITER (TEMPERATURFUEHLER) NTC
BT2	343.00.533.00 M TEMPERATUR - SENSOR NTC VORM.
EA1	985.22.017.00 K LED MODUL RGB STREIFEN 24V 14,4W/M
EA2	985.22.017.00 K LED MODUL RGB STREIFEN 24V 14,4W/M
EA3	343.01.040.00 M LED-BELEUCHTUNG LINKS VORM.
EA4	343.02.040.00 M LED-BELEUCHTUNG RECHTS VORM.



Sielaff GmbH & Co. KG
Am Alten Markt
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D-71071 Vöhringen

Zeichnungsnummer:
343.00.909.00

Erstellt:	Datum	Name	Index	ÄÄ-Nr.	Datum	Beschreibung	Geändert
12.01.22		MAAG_AN					
Geprüft:	12.01.22	MAAG_AN					
Freigegeben:	12.01.22	MAAG_AN					
Bezeichnung:			SCHALTPLAN SUE SILINE				
Blattnr.:			4 / 4				

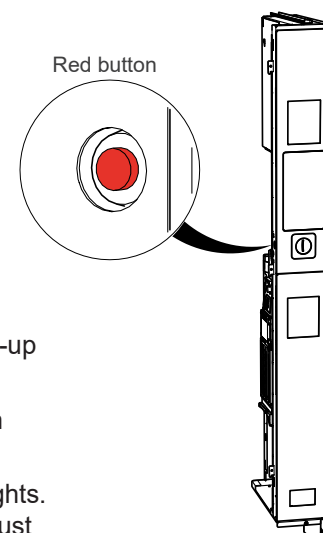
5. Software

5.1 Accessing the menu

Procedure

1. Open the vending machine door
2. Press the red button

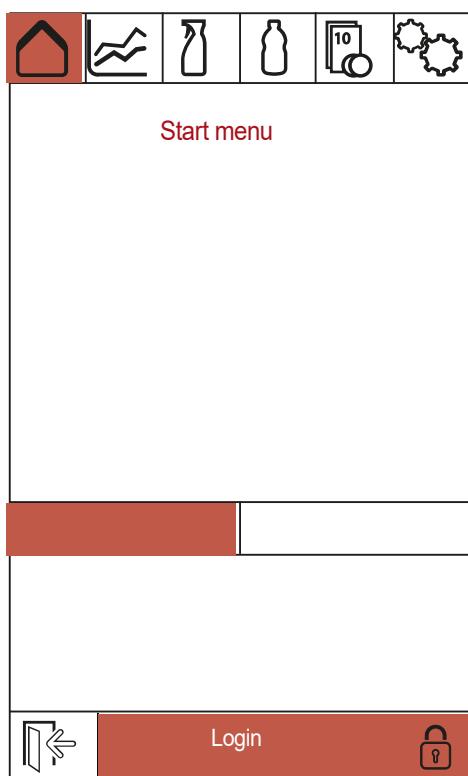
→ The start menu is displayed



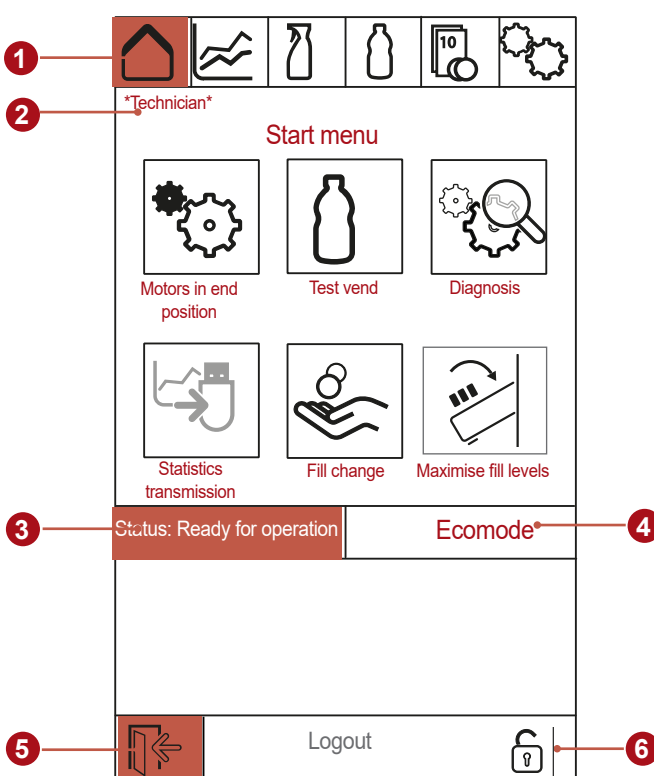
5.2 Tab 1 [Start Menu]

- The start menu is fully selectable when the vending machine is delivered so that the set-up can take place. The access control is switched off.
- The operator has the option of switching on access control and giving new users certain rights. See paragraph [Access Control]. Keyword role.
- In everyday operation, access control is switched on so that the filler only has certain rights. To access the start menu (also called the service menu), a code of at least four digits must be entered to login.

Access control switched off



Access control switched on



- 1 Tab 1 [Start menu] coloured, i.e. menu selected
- 2 Role, e.g. technician, filler, operator, etc. If there is a designation here, you are logged in. If no designation appears, you are logged out.
- 3 Status: The state of the vending machine is displayed. The background is yellow for warnings or errors; the vending machine remains ready for operation. If the background is red, the vending machine goes out of operation.
- 4 [Eco mode]: illumination and refrigeration unit are shut down (to save energy).
- 5 Exit: Switches from the menu to sales mode (only possible when the service key is inserted).
- 6 [Login]/[Logout] Logs the logged-in role in/out of the service menu.

5.2.1 Login/ Logout

- The vending machine operator has the option of creating his/her own names for the fillers and assigning them a role.
- The rights for the roles are defined ex works and cannot be changed.
- The following roles are available: Filler, operator, technician. Refer to the Technical Manual.

Requirements

- The access control is switched on.
- The code is known

Procedure

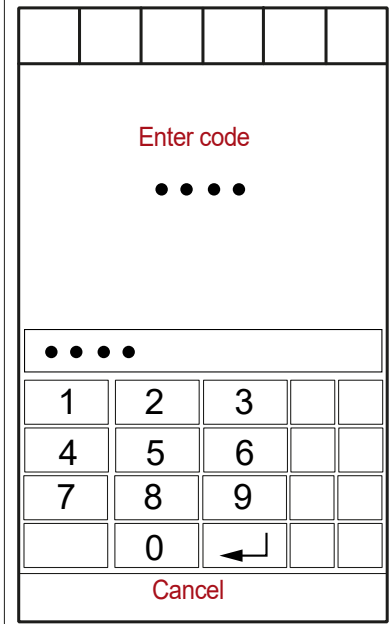
1. Press [Login]
2. Enter the digits on the displayed numeric keypad
3. Confirm with Enter 

- ✓ If the code is correct, the user is logged in.
- The role name appears top left: *Name*.

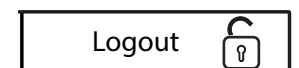
Logout

Procedure

1. Press [Logout]



The login screen features a header with six empty boxes. The main display area shows the text "Enter code" in red, followed by four black dots representing the input code. Below this is a numeric keypad with buttons for digits 1-9, 0, and an "Enter" key (indicated by a left arrow). A "Cancel" button is located at the bottom of the keypad area.



5.2.2 Switch on and switch off [Access Control]

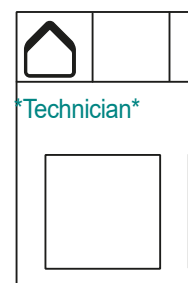
Requirements

- Logged in as operator or technician (highest rights).

Procedure

1. Tab 6 [Machine Configuration] 
2. Press [Access control]
3. Press the slider for [Activate access control]: on  or off 

- ✓ The access control is now switched on or off. A code is requested for certain menus.



5.3 Tab 2 [Statistics/Data]



5.3.1 [Summary]

In this menu, sales made, test vend, free sales and their values can be viewed.

The statistics are divided into [Short-term statistics] and [Total statistics].

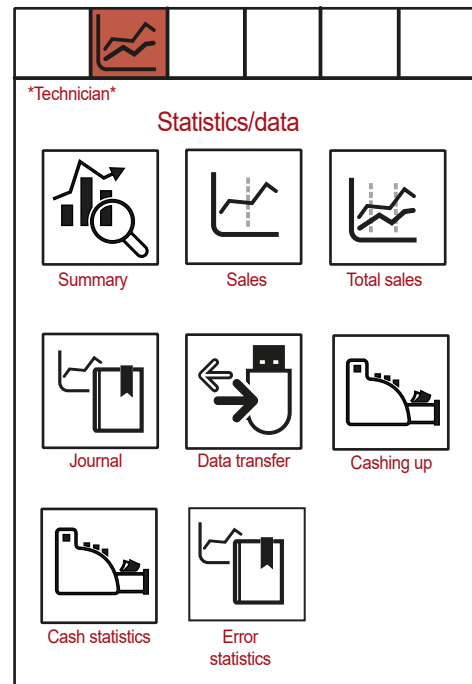
- [Short-term statistics] totals all sales since the last deletion.
- [Total statistics] totals all sales since installation and commissioning.
- [Short-term statistics] can be deleted, [Total statistics] cannot be deleted.

5.3.2 [Sales]

The selections are listed with the number of sales and the value. If a selection is tapped, the breakdown into [Total Sales], [Free Sales] and [Test Vends] opens below.

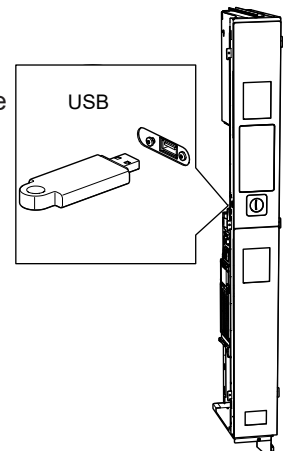
5.3.3 [Total sales]

The number of total sales refers to the sales of the total statistics.



5.3.4 [Journal]

- All actions of the vending machine are stored in the journal. The journal is non-binding. The stored information is intended for the operator and the service technician.
- Actions can be sales, errors, warnings that occur, software updates, login processes or similar.
- To find certain actions more quickly, the [Journal] has a search function. A keypad is displayed if required.
- The journal can be deleted.



5.3.5 [Data transmission]

In this menu you can write statistics, journals and HMI data to an external data storage medium. These can then be evaluated on the PC with suitable software.

This menu also allows you to update the HMI and control software and to load a configuration. A USB stick must be plugged into the HMI for all functions. If this is not the case, no functions can be selected.

[Transfer statistics to the USB stick]

- The short-term as well as the total statistics are written to a connected USB stick. After the transmission, the short-term statistics are deleted.

[Transfer statistics as a csv file to the USB stick]

[Transfer journal to USB stick]

- The journal is written to a connected USB stick. After the transfer, the journal is not deleted.

[Transfer configuration to the USB stick]

- The entire configuration is written to a connected USB stick.

[Transfer log to the USB stick]

- The log files are written onto a connected USB-stick.
CSV configuration read from USB-stick.

[Clone vending machine to USB stick]

- Once a configuration has been created, it can be transferred to other similarly equipped vending machines.

[Read configuration from USB stick]

- The entire configuration is read in from a connected USB stick and written to the control unit of the vending machine.

[Read software update from USB stick]

- Update source: <http://www.sielaff.com/download-center/>

5.3.6 [Cashing up]

Cashing up gives the control unit the command to delete the short-term statistics. The short-term statistics are only deleted after the next coin insertion.

If a modem is connected, a call command is triggered.

5.3.7 Cash statistics

The stock of coins or notes is shown.

5.3.8 Error statistics

The recorded errors are listed in chronological order. The analysis can help an experienced operator to eliminate faults.

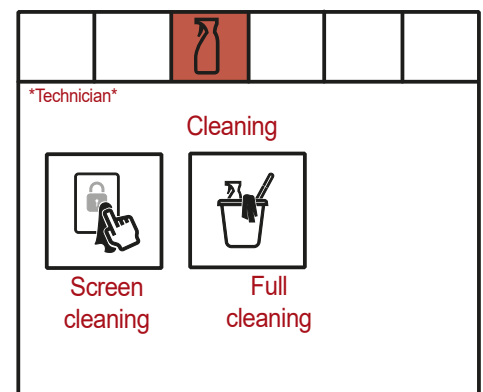
5.4 Tab 3 [Cleaning]**5.4.1 [Screen cleaning]**

You should select this menu to clean the sensitive glass surface. For this purpose a 20 second timer is displayed and during this time the screen does not respond to touch.

5.4.2 [Full cleaning]

In this menu, the display shows you "step-by-step" which components are to be cleaned.

Please note that regular checking and cleaning of the lint filter is important for vending machine operation.



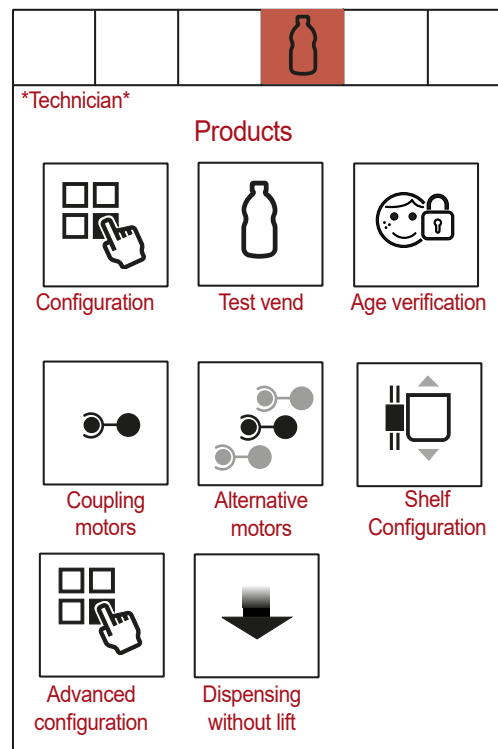
5.5 Tab 4 [Products]



You need this menu if you wish to set up the vending machine again or make changes to the products.

Important keywords:

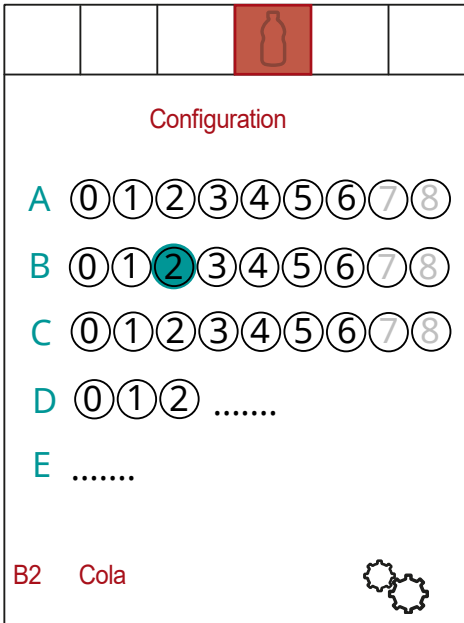
- Setting prices
- Setting price lines
- Carrying out a test vend
- Programming age verification
- Coupling motors
- Determining alternative motors
- Analysing built-in shelves and drawer type
- Setting advanced configurations
 - Deal configuration
 - Food safety
 - Fill levels
 - Product classes
- Setting dispensing without lift for individual selections



5.5.1 [Configuration]

A matrix is displayed with the drawer levels (A-H) and the selections (0 - 9).

Depending on the vending machine type and existing configuration, programmable (selectable, editable) choices appear in **white** digits in the display. Ineligible selections are **grey**.

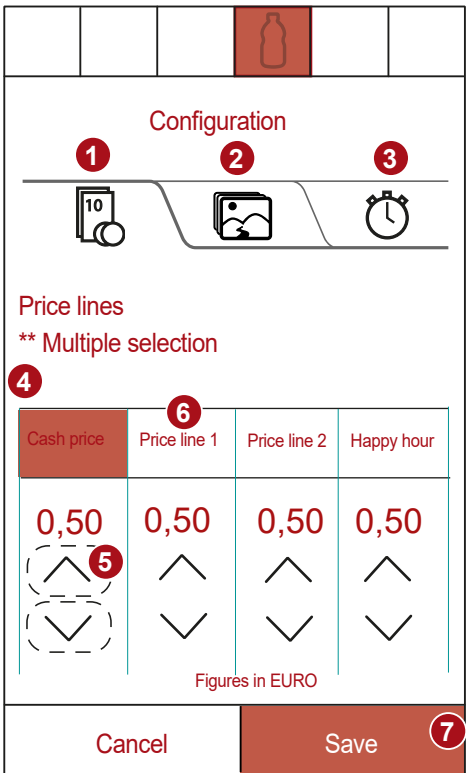


Select drawer B2: → tap with your finger

B 0 1 2 3 4 5 6

Make multiple selections → drag diagonally with your finger ;
Multiple selection

A 0 1 2 3 4 5 6
B 0 1 2 3 4 5 6
C 0 1 2 3 4 5 6



- 1 Price line tab
- 2 Product image tab
- 3 Activation times tab
- 4 The two stars ** are placeholders for the selection. If a product name has been entered, then instead of [Multiple selection], e.g. "Mineral water" will be displayed.
- 5 Enter the price for your selection here:
Arrow up/down.
Numeric direct entry when you tap on the price. A numeric keypad is displayed.
- 6 You can enter the cash price, the two price lines and the happy hour price here.
- 7 To finish, press the [Save] button.

Your selection	Meaning of the selection
Price lines B2	Selection B2
Price lines A*	Shelf A whole
Price lines *0	Drawers column left (whole)

* represents a placeholder.

Price line tab

Under this tab, the cash price, price line 1 and 2 and the happy hour price can be edited.

Product image tab

A product image can be assigned to each product. This image is then displayed on the screen when the product is sold.

3 images can be stored for one product:

- Product image: is displayed in the general overview of the available products.
- Selection screen: is displayed during the sale.
- Info picture: the allergens or other information about the product are stored here as a photo.

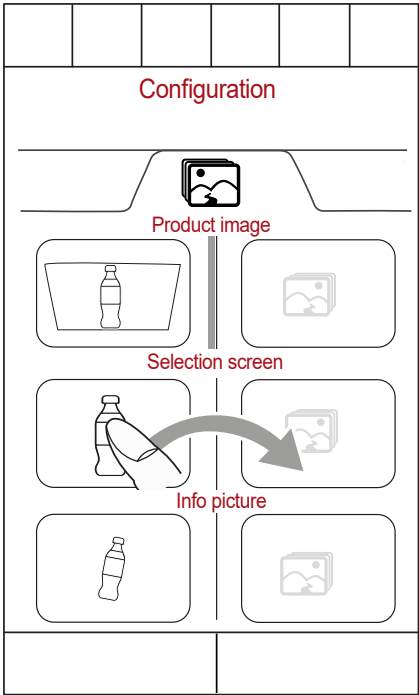
Product images can be transferred from a USB stick to the vending machine in the menu [Machine configuration] - [Multimedia] - [Product images].

The thumbnails are moved from the left column to the right column by "drag and drop".

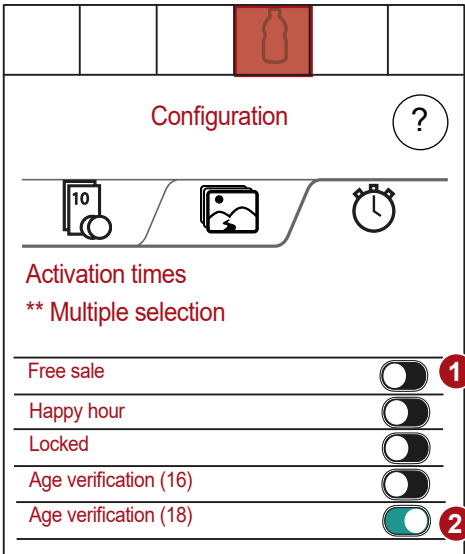
Confirm with [Save]

Activation times tab

Here you can activate age verification (from 16 or from 18 years), free sale, the application of happy hour, hotel mode, or simply the total block for the displayed selection.



See chap. "5.7.6 [Multimedia]" on page 91



- 1 Free sales are switched off
- 2 Age verification (18) is switched on

5.5.2 Programming example (prices, product image, activation times)

Procedure

1. Select [Configuration]
2. Make a selection or multiple selection
3. Select [Continue]
- The Price line tab  is opened.
4. Use the up/down arrow to enter the cash price
5. In the Product Image  / Selection Picture tab, select an image and drag it to the right into the column and then release.
6. In the Activation times tab , switch one of the functions (free sale, happy hour ...) on or off. The times are programmed in tab 6 [Machine configuration] - [Time settings]
7. Press [Save].

✓ The cash price and a product image have been assigned to a selection.

5.5.3 Menu [Test vend]

Procedure

1. Make a selection
2. Select [Start sale]

5.5.4 Menu [Age verification]



The [Age verification] menu offers the option of making product vendes subject to a higher or lower age verification. You can also activate time profiles.

[Age 1] [Age 2]	Here you can set the age to be checked between 16 and 24 years. You can change [Age 1] and [Age 2] by selecting the age and then adjusting it turn the number drum
[Allow identification before selecting]	Default [off] With option [on], age verification is also accepted without a pre-selection. Requirement: the option [Activation timeout] is active and [Age 1] is equal to [Age 2].
[Allow money acceptance in general]	Select [on] to generally allow credit acceptance. If age verification is active, credit acceptance is only permitted after pre-selection.
Activation timeout	Default: 20 sec. This time remains for the buyer to select a product with active age verification after successful age verification.
Age verification active	You can always switch age verification on and off here.
Age verification mode 1	[off], [on], [time-controlled]
Age verification mode 2	[off], [on], [time-controlled]

5.5.5 [Coupling motors]

For wide products, two spirals can be used side by side. To do this, the two motors must be coupled.



Procedure

1. *Make adjacent selections*

→ The option [Couple] is displayed

2. *Press [Couple]*

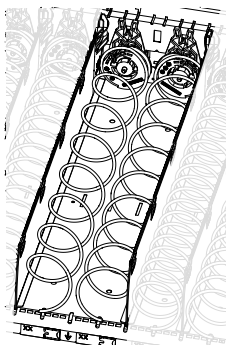
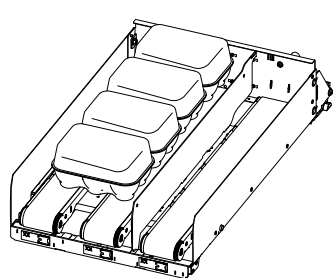
→ Both selections are combined

3. *Remove the partition wall*

4. *If necessary, insert another spiral*

5. *If necessary, change the direction of rotation of the spiral (reconnect the plug from the motor to the connector strip)*

✓ Compartments/Drawers are now coupled



C 0 1 → Two individual selections: C0 and C1

C 0 1 → coupled

C 0 1 2 → 3 selections coupled

Decoupling

[Decoupling] works in the same way.

5.5.6 [Alternative motors]

If a selection is empty, this function can be used to dispense from another selection. For this, one and the same product must be divided among several selections so that this function can be used. This ensures uniform sales. The order of dispensing from the combined selections is alternating.



The function [Alternative motors] is not related to [Coupling motors].

Procedure

1. *Make the first selection*

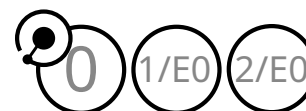
→ highlighted in green

2. *Make the second selection (etc.)*

→ highlighted in hatched

3. *Press [Save]*

✓ The selections are linked



1/E0 means: Selection E1 is connected to E0;

leading selection: .

Undoing alternative motors

1. *Tap the leading selection* .

→ All linked selections are displayed

2. *Tap on the selection to be undone*

→ Hatching is cancelled

3. *Press [Save]*

✓ A selection is now decoupled

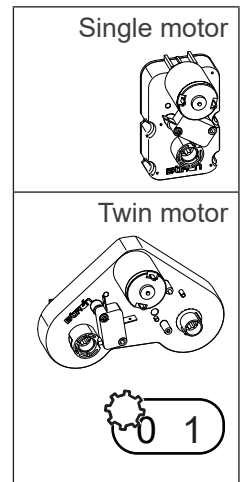
5.5.7 [Shelf configuration]

When this menu is selected, the vending machine analyses the type, number and installation height of the compartments/drawers. Shelf configuration is selected when the layout of the vending machine has been changed.



Start shelf configuration

1. *Insert the service key.*
2. *Press [Shelf configuration]*
 - A warning appears
3. *Press [Yes] to confirm*
 - The lift slowly goes up and down again
 - The following is shown: Automatic shelf configuration has been completed successfully
 - The result is displayed, e.g.
 - Number of light grids
 - Number of available lifts
 - Number of shelf selections
4. *Confirm with [OK]*



Correcting the lift position

The lift position when picking up the products can be corrected in height.

1. *Press the [Selection offset] tab*
 2. *Make a selection*
 - The lift moves to the selection
 3. *Use the up/down arrow to adjust the height*
 4. *Press [Product dispense] if necessary*
 5. *Press [Save]*
- ✓ Lift position is now corrected
- The lift moves to the home position

5.5.8 Advanced configuration

5.5.8.1 Deal configuration

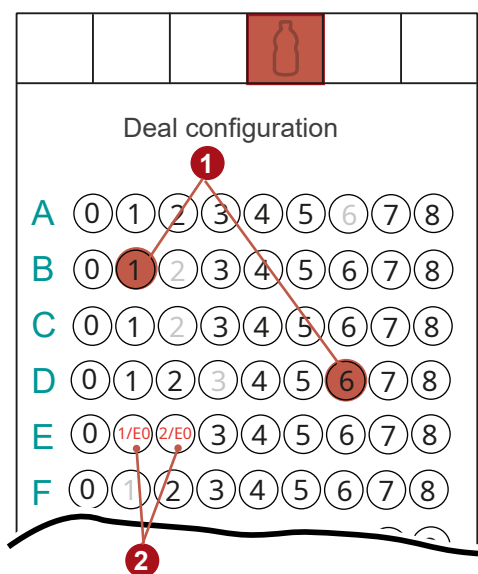
In this menu you can combine two products to offer them to the customer as a menu suggestion. Usually a snack item is combined with a drink.

Procedure

1. *Make the first selection*
2. *Make the second selection*
- [Deal is complete] is displayed
3. *Press [Next].*

Notes

- Products are dispensed in the order of programming. This is important to note so that delicate products are not damaged by subsequent heavier products in the dispenser.
- Prices, product images and activation time must be set for this deal. See “5.5.1 [Configuration]” on page 71.
- A designation must also be entered.



- 1 For example, press [Add new deal] and then put selections B1 and D6 together.
- 2 The red lettering 1/E0 indicates the [Alternative motors] function. To add this selection in a deal, selection E0 must be used!

5.5.8.2 Food safety (temperature control)

When selling goods from a vending machine, certain requirements must be met in order to offer the consumer a flawless product.



Vending machine

- The vending machine is designed and built in such a way that food can be sold without any negative impact on its quality.
- The refrigeration unit continuously maintains the required temperature in the vending machine (observe maintenance).
- The food safety function (temperature control) must be switched on and set for the desired selections.

Filler/operator

- The operator must select a suitable location for the vending machine where there are no negative impacts from the surroundings (e.g. a break room is suitable).
- Only introduce perishable food when the required cold compartment temperature has been reached.
- Only offer packaged food in vending machines.
- The HACCAP principle must be observed when handling food. The aim is to sell the consumer only hygienically flawless products.
- Observe country-specific regulations for the storage and sale of food.
- In order to comply with the necessary hygiene regulations, perishable foods are generally stored at +4°C and very perishable foods at +2°C.
- The cold compartment temperature must be selected for the safe storage of the most sensitive food.
- As soon as the temperature in the vending machine rises and the shutdown conditions defined in the vending machine software are met, all selections with activated temperature monitoring are blocked for vending. Selections without temperature control remain available.
- Products in blocked selections must be disposed of.
- The best-before date on the products must be observed.
- The cold compartment must be cleaned and disinfected using suitable agents.
- The operator must carry out and document their own checks as part of their duty of care.
- ECO mode cannot be used with food safety (temperature control).

Switching on product temperature control

1. Select tab 4 [Products]
 2. Select [Advanced configurations]
 3. Select [Food safety]
 4. Switch on [Activate food safety]
- ✓ Control is switched on for all selections
5. For selections that do not require control, select [Deactivate]
 6. Select [Save]
- ✓ Control has been set for selections.

Action	Representation
When food safety has been activated, it applies to all selections	
If a selection is not to be monitored, this must be selected	
Monitoring has been removed for this selection	

Set temperature in the cold compartment (control temperature)

The set temperature is adjusted in tab 6 [Vending machine configuration] - [Refrigeration unit].
A set temperature of +2°C is recommended.

5.5.8.3 Fill levels

In this menu you can assign a defined filling quantity to each selection. The control unit can deduct the sales made from this filling quantity.

After filling, the filler has the option of correcting the number of products in the compartments/drawers.



Activating the [Fill levels] function

1. Press tab 4 [Products]
2. Press [Advanced configurations]
3. Press [Fill levels]
4. Switch on [Deactivate filling levels] (pusher on)
5. Press [Save]

✓ The fill levels are counted by the control unit. The filler is asked about completeness after filling and has the option to correct.

Enter the maximum value for the fill level (Filling quantity)

1. Press tab 4 [Products]
 2. Press [Advanced Configurations]
 3. Press [Fill levels]
 4. Select a product, i.e. a selection or a multiple selection
 5. Press [Set maximum value]
- A numeric keypad is displayed
6. Enter the maximum value
 7. Press [Save]

✓ The maximum value of products for selection has been entered. The control unit can now calculate correctly.

Filler: correcting the fill level

1. Press tab 1 [Start menu].
2. Press [Maximise fill levels].
3. Answer the question "Have you filled the vending machine?" with [yes] / [no]
4. Answer the question "Have you filled all drawers?" with [yes] / [no]
5. [no] : Enter the maximum value for the fill level
[yes] : Press [Save].

✓ The absolute placement of products is now communicated to the control unit.

5.5.8.4 Product classes

A product class can be assigned to the product selections. The product classes define whether a product is fragile, lightweight or heavy. This classification is useful for the product basket to prevent, for example, a heavy glass product from falling onto packaging with crisps. The product basket dispenses several products at once in the lift.

Product classes:

- Glass
- Fragile
- Beverage carton/PET/can
- Large bag
- Snack/small bag

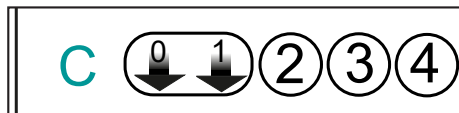
5.5.9 Dispensing without lift

For selection with non-sensitive products, collection with the lift can be switched off. The products are dispensed quickly and fall into the dispense outlet.



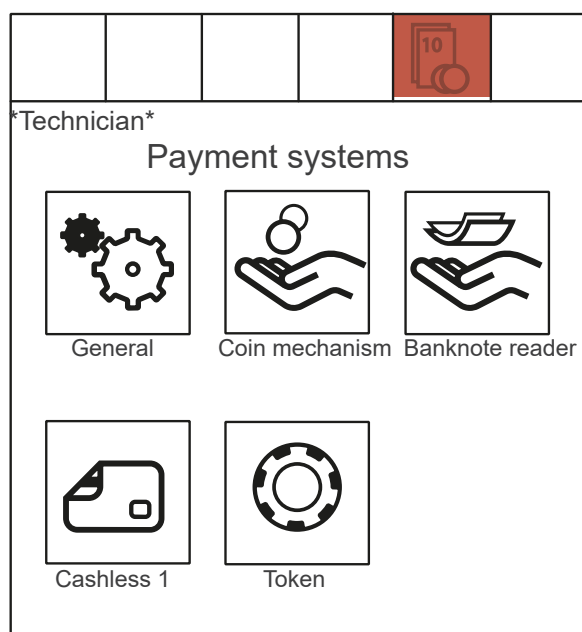
Procedure

1. *Make selection*
2. *Press [Deactivate lift]*
3. *Press [Save]*
 - A down arrow is displayed
 - The selection dispenses the products without lift



5.6 Tab 5 [Payment systems]

The menu tab 5 [Payment systems] is set up for coin mechanisms and banknote readers, as well as contact, contactless and cashless systems.



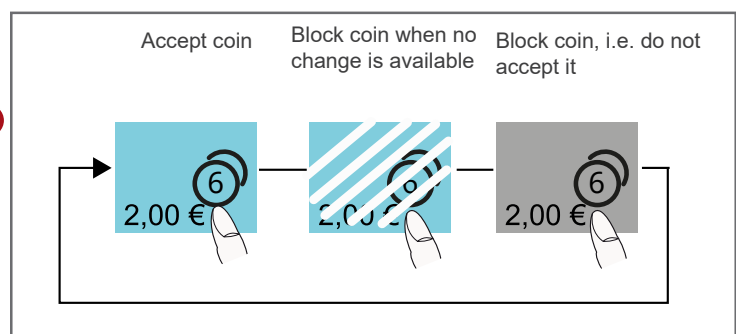
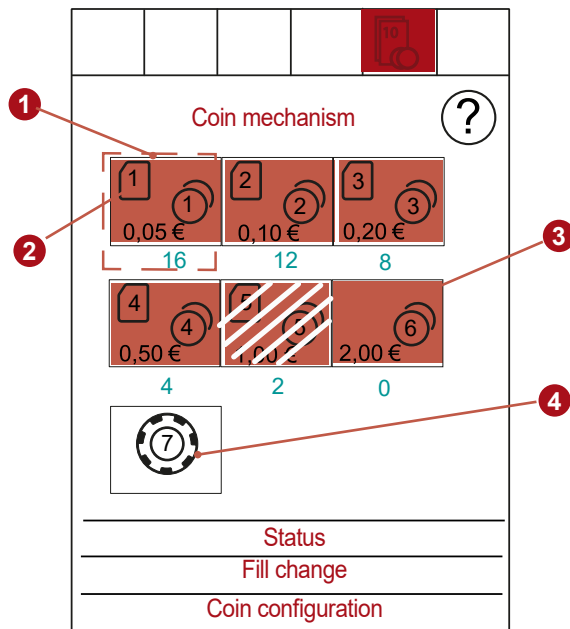
5.6.1 [General]

Credit system protocol	Here you must select the preferred protocol for communication between the credit system and the vending machine control. [MDB], [BDV] [Executive] or [Free vend]
Currency	Here you can select the displayed currency. The currency of the MDB devices must match the currency of the vending machine. If not, the MDB device is rejected. The option [Ignore Currency] allows MDB devices with a different currency to be tolerated.
[Decimal places]	Number of decimal places of the currency
[Autom.Configuration]	Automatic configuration [on]: these are set as suitable if [max. Change] [Acceptance limit] and [Credit timeout] are set to 0
[Preselect time]	Time after product selection to insert money or, in the case of age verification, to show the age.
[Mulitvend]	After a purchase transaction, the remaining money is not automatically paid out but shown as a credit on the display. The customer has the option to choose a new product. Money is returned at the touch of a button or [Credit timeout].
[Max. money return]	The maximum money return can be set.
[Compulsory purchase]	If activated and the credit is greater than or equal to the minimum product price, the remaining money is only returned after a sale or, depending on the configuration, after a dispensing error. In practice, at least one product must be purchased before a refund is made. This prevents misuse of the vending machine as a coin mechanism.
[Compulsory purchase money return empty selection]	If active, the [Compulsory purchase] option is cancelled after an empty selection
[Compulsory purchase money return timeout]	If active, [CreditTimeout] will cancel the [Compulsory purchase] option. The remaining money is then automatically returned after a certain time.
[Acceptance limit]	Here you can set the maximum amount that will be accepted. If the amount set here is reached, the acceptance of further cash is blocked.
[Happy hour]	Select here whether you generally want to create or activate a [Happy hour].
[Price list 1]	Select here whether you basically want to create or activate a [Price List 1].
[Price list 2]	Select here if you want to create or activate a [Price List 2]
[Motor return]	If the vending machine has a motorised return, you must switch this function on.
[Display no change money]	The [EXACT MONEY ONLY] indicator is disabled. This setting is necessary if it is not possible to give change.
[Ignore currency]	The currency of the MDB devices is tolerated, even if they do not match the currency of the vending machine.
[Credit timeout]	Time after which remaining money is returned if no purchase transaction takes place
[Change lock]	This option can be set to prevent the vending machine from being used as a money changer. The limit above which no more change is made can be set from 0 to 255 coins. Only the amount of coins inserted counts, not the value.

5.6.2 [Coin mechanism]

If a coin mechanism is installed and connected, you can fill the change, check the status and configure the coin mechanism here. Also observe the manufacturer's operating instructions.

Select [Status] if you wish to receive information. Use [Filling change] to move on if you wish to fill up coins. In [Coin configuration], special settings are made for the payment mode.

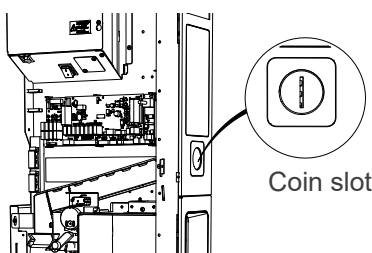


5.6.2.1 [Status]

When the status is [active], the coin mechanism reports the [version] and the [serial number] to the control unit. The [MDB] protocol must be set for this. If the status is [inactive], there is no information from the coin mechanism, the fields remain empty.

Coin mechanism with tube fill level sensor

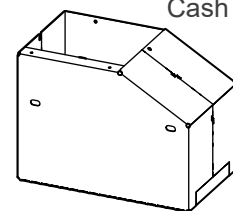
With newer coin mechanisms, pre-filled tubes can be used. In this case, the control unit must be informed that the tube stands have changed. The command [Accept payment system values] in the [Actual value] tab in the sub-menu [Coin configuration] updates the new coin balance. Now press [Save].



Tubes



Cash box



5.6.2.2 [Filling change]

- When filling the vending machine for the first time, a few coins must be inserted into each coin tube (safety coins, sleeping coins). The number of coins remaining depends on the coin mechanism used and usually varies during operation.
- Select the [Filling change] menu and insert the coins into the slot at the front of the vending machine. The display shows the number of inserted coins reported by the coin mechanism.
- When the coin mechanism has reached the minimum number of coins, it signals "ready for operation" to the control unit. If there is insufficient change, the following appears in vend mode: [No change]
- As a rule, not all coins are issued. The security coins (sleeping coins) remain in the coin mechanism.

5.6.2.3 [Coin configuration]

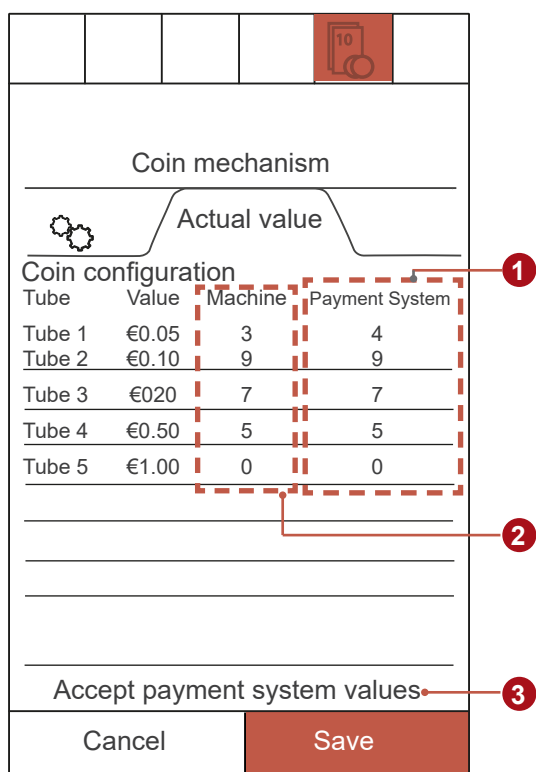
Settings tab

[Alternative payout]	Activate secure payout mode with confirmation of the coins paid out, if the coin mechanism supports this function. The denomination is determined by the coin mechanism.
[Accept coins for charging only]	If active, coins are only accepted if a chargeable card is present and coins are generally active.
[No change: accept for charging anyway]	If active and no change is available, the coin with the number x is accepted if the coin is generally active and its value can be charged. Coin numbering results from the sequence of coins reported to the MDB. (x=1....16)
[Coin mechanism active]	Activate or deactivate the coin mechanism
[No change: accept anyway if returnable]	If active and no change is available, the coin with the number x is accepted if the coin is generally active and its value is returnable. Coin numbering results from the sequence of coins reported to the MDB. (x=1....16)
Reset to factory settings	Sets [Coin mechanism active] and [Alternative payout] to "on" and the remaining options in this tab to "off".

[Actual value] tab

Here you will find an overview of the number of coins in the tubes, determined by the coin mechanism and the control unit. The column is called [Machine] and [Payment system] in the [Actual value] tab.

If you press the [Accept payment system values] button, the values are accepted accordingly.



Coin mechanism

Actual value

Coin configuration

Tube	Value	Machine	Payment System
Tube 1	€0.05	3	4
Tube 2	€0.10	9	9
Tube 3	€0.20	7	7
Tube 4	€0.50	5	5
Tube 5	€1.00	0	0

Accept payment system values

Cancel **Save**

- 1 The right column payment system is reported via MDB for newer coin mechanisms. If the tubes have been filled by hand, the coin mechanism recognises this when the tubes are reinserted.
The command [Accept payment system values] updates the new coin balance. This can take a few seconds.
Then press [Save]
- 2 The left column shows the tube fill level as it is available to the control unit.
- 3 [Accept payment system values] button.

5.6.3 [Banknote reader]

If you wish to use a banknote reader, you must make settings in this menu.

10

Technician

Banknote reader

?

1

5,00 €

16

2

10,00 €

5

5

20,00 €

2

4

50,00 €

0

Status

Note configuration

Cancel

Save

10

Banknote reader

Note configuration

High-security notes

Accept notes for charging only

No change: accept to charge anyway

Banknote reader active

Cash box cache active

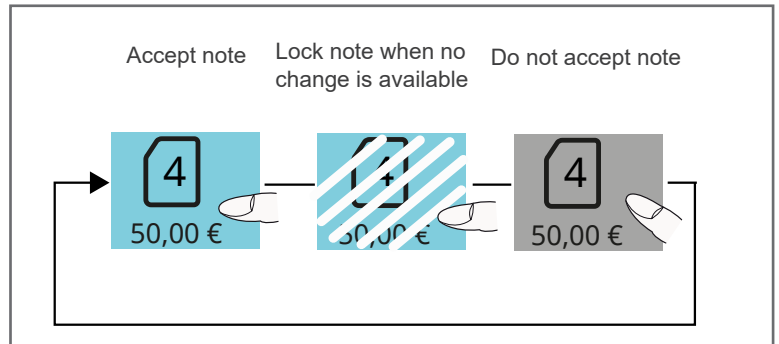
No change: accept anyway if returnable

Note changer active

Reset to factory settings

Cancel

Save



[Note configuration]

[Accept notes for charging only]	If active, notes are only accepted if a chargeable card is present and the notes are generally active.
[No change: accept for charging anyway]	If active and no change is available, the note with the number x is accepted if the note is generally active and its value can be charged.
[Banknote reader active]	Activate or switch off the banknote reader
[Cash box buffer active]	The note from the buffer can either be accepted or returned. The settings are [hold] and [stack].
[No change: accept anyway if returnable]	If active and no change is available, the note with the number x is accepted if the note is generally active and its value is returnable.
[Note changer active]	If an MDB coin mechanism is in use, [one] must be selected.

[High security notes]

[High security note1]	With high security activated, the note x is only accepted if it has a high match with the learned note features.
Note2: etc.	
[Cancel]	Press this button to go back one level without saving.
[Save]	If you have made changes in this menu, you must exit the menu with [Save].

5.6.4 [Cashless 1] [Cashless 2]

At the vending machine, a distinction is made between the first payment system [Cashless 1] and the second payment system [Cashless 2].

[Age verification log]	Switch on this function if the payment system can determine and report the cardholder's age.
[Conversion factor]	Conversion factor for monetary values: All monetary values to and from the card are converted with the factor.
[Charging prohibited]	If active, charging to card is prohibited. If charging is allowed, charging can only be done automatically if mixed payment with cash is prohibited.
Cashless1 active	Cashless1 can be switched on and off here
[Display]	Messages from the card system are displayed on the vending machine. Default [off]
[Enable Always idle]	Activates the always idle functionality, if supported. Therefore, for example, a sales enquiry can be started without an existing card.
[Enable expanded currency]	Activates the expanded currency functionality, if supported.
[Enable FTL]	(File Transfer Layer) Activates, if supported, the FTL functionality for data exchange between MDB devices and/or the vending machine control unit
[MDB level]	MDB level (1, 2, 3) Set the level of MDB communication with the card system. The card system also responds with a level and the smaller of the two is the basis for further communication.
[Acceptance mode]	For receipt acceptance, the card scheme must deliver a fixed card credit, which is then treated as a vend token. If necessary, mixed payment must be allowed.
[Mixed payment cash prohibited]	Prohibit mixed payments with cash: if active, mixed payments from card system 1 with cash are not permitted.
[Mixed payment cashless prohibited]	Prohibit mixed payments with other card system: if active, mixed payments from card system 1 with another card system is prohibited.
[Happy hour price list]	Allow happy hour price list: if permitted, the sales price for happy hour is determined on the basis of the happy hour price list. If not, this is done by means of the standard price list.
[Mixed payment price list]	Allow standard price list for mixed payment: if permitted, the standard price list is used for mixed payment. If not, the cash price list or, if active and permitted, the happy hour price list will be used.
[Standard price list]	Standard price list: Sets the standard price list for the card system. Medium as the standard price list allows a card to determine the price list. If this is not active, the cash price list is used as the basis.
[Delete credit after refund error]	Refund chargeback error of the card system: some card systems can no longer refund the sales price already debited after an empty selection/dispense error. If allowed, the cash credit is increased by the amount of the sales price.
[Time limit for sales enquiry]	Response time of the card system to a sales enquiry: the maximum of the ApplicationMaximumResponseTime for the card system and the response time are taken.
[Allow price change by card]	If active, a price change is allowed by the card in VendApproved. If not, the sale is not permitted and a VendFailure is signalled to the card.
[MDB 4.3 Ask begin session]	Activates, if supported, the AskBeginSession function under MDB 4.3. This means that, for example, a card with parameters can still be presented for a sales enquiry in AlwaysIdle.
[MDB 4.3 Basket/partial refund/options price]:	Activates, if supported, the BasketPartialRefundOptionsPrice function under MOB. For example, a vend can be made with the [product basket]. The total price is requested and then either a sale or an error is reported and calculated for each product.
[MDB 4.3 Coupon]	Activates, if supported, the Coupon function under MDB 4.3. This means, for example, that a coupon can be generated in the vending machine and a sale can also be started.
[MDB 4.3 Enhanced item number information]	Activates, if supported, the EnhancedItemNumberInformation function under MDB 4.3. This means, for example, that a name abbreviation can be transferred for the requested and the issued product. CashSale extended with cashless parameters.
[MDB 4.3 Remote vend]	Activates, if supported, the RemoteVend function. This means that Cashless, for example, can start a sale.
[Start options]	The start options are unchanged under default: -1
[Cashless 1 MDB response time]	Time taken by the card system to respond to commands from the control unit. Necessary for operating slow card systems.

5.6.5 [Token]

If you wish to use a token, you must adjust the settings for it in this menu.

There are 2 tabs in this menu:

- Configuration tab
- Value tab

- 1 With the [Token identification] button you can insert the token and the coin mechanism analyses and parameterises the token.
- 2 Assign the value to the token. If the token receives a value of 0, it is recorded as a vend token (free sale).

Token

Coin token	is recorded in the coin mechanism
Note token	is recorded in the banknote reader
Vend token	Allows a free sale
Vend token	A monetary value must be assigned

[Note token active]	If active, note tokens are allowed. Otherwise, these are prohibited, even if they are activated in the note acceptance.
[Additional payment(cash) allowed]	The vend token can be used together with cash
[Additional payment(cashless) allowed]	The vend token can be used together with a card system. The option of mixed payment with cash must be allowed. See chap. "Cashless"
[Cashless 1 token active]	If active, a vend token is allowed by card system 1. Otherwise, if vend tokens are reported, the sale is not approved and the card is reported as an error.
[Cashless 2 token active]	If active, a vend token is allowed by the card system. Otherwise, if vend tokens are reported, the sale is not approved and the card is reported as an error.
[Coin token active]	If active, coin tokens are allowed. Otherwise, these are prohibited, even if they are activated in the note acceptance.
[Multiple vend tokens allowed]	Multiple vend tokens are allowed

5.6.6 Tube inventory

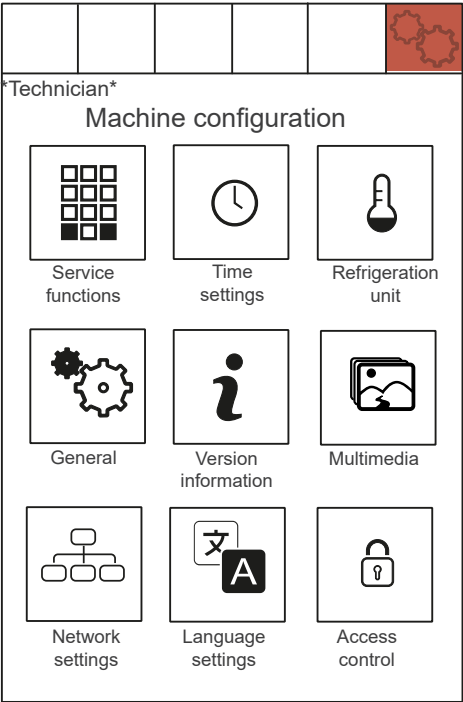
The inventory can be accessed here:

[Coin inventory]

[Note inventory]

[Hopper inventory]

5.7 Tab 6 [Machine configuration]



Sub-menus:

- [Service functions]
- [Time settings]
- [Refrigeration unit]
- [General]
- [Version information]
- [Multimedia]
- [Network settings]
- [Language settings]
- [Access control]



5.7.1 [Service functions]

For the service technician/operator only

Automated components can be controlled directly. The service functions support you in troubleshooting or maintaining the vending machine. The service work must be carried out with the unit door open, the service key must be inserted.

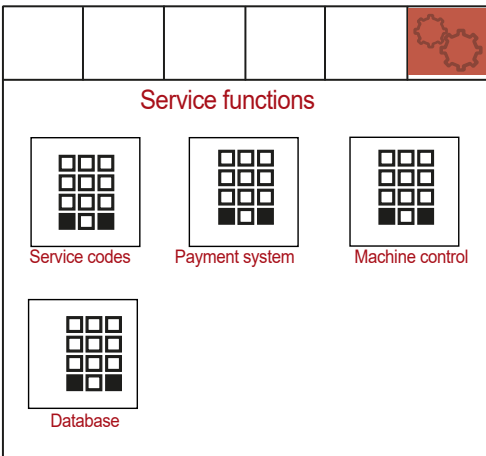
Service numbers are divided into categories: M, double M and L functions.

M functions are used for testing the control board outputs which communicate with a motor or similar actuators.

L functions display a value.



DANGER! Risk of injury
Danger of moving parts in the vending machine. Do not reach into the vending machine when performing service functions!



[Service codes]	In this submenu you can enter service functions directly. Enter the service function and the suffix (L, M or double M). Then perform the service function by tapping [Send]. The service function can only be performed if the control unit recognises the service function (black text).
[Payment system]	Only the service functions that relate to the payment system are displayed with their number and name.
[Control unit]	Only the service functions that relate to the control unit are displayed with their number and designation.
[Database]	Only the service functions that refer to the database are displayed with number and designation.

5.7.2 [Time settings]



	Activation times				
Ecomode					
Illumination					
External output (230 V)					
Locking times					
Happy hour					
Free sale					
Hotel mode					
Energy saving mode					
Display illumination					
Cancel			Save		

The following pages can be selected by swiping horizontally on the display.

[Activation times]
Ecomode, illumination, external output, locking times, happy hour, free sale, hotel mode, energy saving mode, display lighting

[Time settings]
Setting the time and date

[Time zones]
Time zone at the installation site

Weekdays with illumination							
1							
Mon	Tue	Wed	Thu	Fri	Sat	Sun	06:00 – 22:30
Weekdays with illumination							
2							
Mon	Tue	Wed	Thu	Fri	Sat	Sun	00:00 – 24:00

The illumination is switched on Tuesdays and Wednesdays at the programmed times from ... to.

5.7.3 [Refrigeration unit]



Here you can switch the refrigeration unit on and off permanently or program it time-controlled.
If you select [time-controlled], you must and tap on the [Weekdays with refrigeration 1] and adjust the values accordingly.

Refrigeration unit

Functions

Refrigeration unitTime-controlled

Weekdays with refrigeration 1

MonTueWedThuFriSatSun

Weekdays with refrigeration 2

MonTueWedThuFriSatSun

Set temperature8

Raised temperature standby12

Weekdays with refrigeration

Time settings

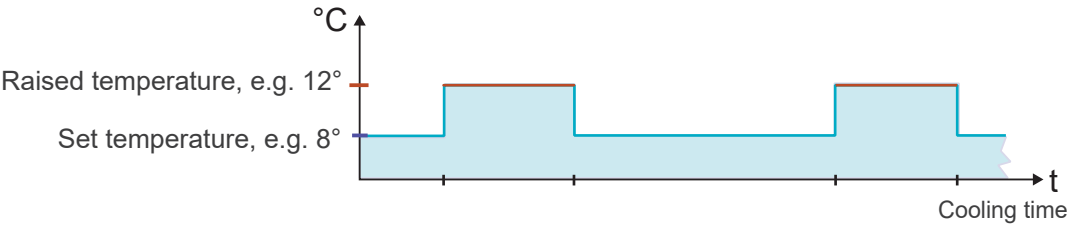
MonTueWedThuFriSatSun

05:00 - 21:00

04592059
05002100
06012201

↺

✓



5.7.4 [General]



[General] ☒ ☐ ☐	
[Serial number]	The [serial number] is entered in the factory.
[VENDING MACHINE NUMBER]	Here, a separate number can be assigned to the vending machine.
[Vending machine type]	Leave the factory setting.
[Vending machine chute configuration]	Leave the factory setting.
[Vending machine version]	Leave the factory setting.
[Max. hours until the next mandatory cleaning]	Here a counter counts down to zero.
[Time limit product output]	Sets the time window for dispensing a product. This allows any fault in the lift system to be detected.
[Section type]	Keypad selection or direct selection
[Advertising]	If activated, the lift is raised and lowered once at the interval defined under [Advertising repetition time in minutes] to draw attention to the vending machine and present any advertising attached to the lift.
[Advertising repetition time in minutes]	Enter the interval for advertising here
[Fill mode of the selection screens]	Cropping or adapting
[Show product texts]	Display the product texts (if available)
[Show product prices]	Switch the price labelling of the products on or off.
[Service telephone number]	Store the telephone number here that is shown in the display in the event of faults.
[Service telephone number 2]	Store another telephone number here that is shown in the display in the event of faults (formerly RZ - Rechenzentrum/data centre).
Minutes until automatic exit from the service menu	Default: 5 minutes
Dispensing drum product recognition	Switch on/off
[Shopping cart]	If this function is activated, the customer is shown another button to purchase another product after selecting a product. Only if the [product class] has been defined for the products are they dispensed together in the lift.
[Helix overrun]	Switch on/off
[Temperature display]	Switch on/off
[Open the dispense outlet again]	If activated, a button is displayed after a sale for the time defined under [Time limit for reopening the dispense outlet] to reopen the dispense outlet if the product was not removed in time.
[Duration of screen cleaning]	During screen cleaning, the touch functionality of the display is deactivated for a period defined here so that the screen can be cleaned without triggering touch operations.
[Access code for hotel mode]	If hotel mode is activated, vends are only possible after entering the code defined here.
[Preselection for hotel mode]	After entering the hotel mode code, a vend can be made for the time defined here, after which the vending machine locks again until the hotel mode code is entered again.
[Refrigeration unit activated]	Must be activated if a refrigeration unit is fitted and deactivated if no refrigeration unit is fitted. In this case, the corresponding software module will not be loaded and no warnings/errors relating to the refrigeration unit will be shown. The vending machine must be restarted after any changes.
[Take the vending machine out of operation in the event of a refrigeration unit error]	Switch on/off

[Display/ illumination] ☐ ☒ ☐	
[Display brightness]	Adjust the brightness of the display
[Brightness product lighting door closed]	Indication in %
[Product lighting door open]	Switch on/off
[Brightness product lighting door open]	Indication in %
[Illumination]	[On] [Off] [Time-controlled]
[Colour change]	Type of colour change
[Colour change interval]	Time between colour changes
[Number of colour changes]	Choose the number of colours
[Colour 1] [Colour 2] [Colour 3]	Set the desired colour on the displayed colour gradient

[HMI / communication] ☐ ☐ ☒	
[DDCMP I/O Status]	Read/write only when door open
[DEXUCS I/O Status]	Read/write only when door open
[Maximum baud rate]	Default 115200
[Remote access days]	Mon – Fri, 1 means active day, 0 means inactive day
[Remote access mode]	If activated, the vending machine establishes a connection to the server defined under [Remote access days] and [Remote access time] on the days/times defined under [Remote access IP address].
[Remote access time]	Time for remote access, e.g. 063000 for 06:30:00
[Chat APN]	Access point name for SIM card use
[Chat password]	Password for SIM card use
[Chat user]	User name for SIM card use
[Remote access data inbox]	If active, the server can write data for the vending machine as well as read data
[Remote access IP address]	IP address of the remote access server
[Remote access input port]	PC input port for remote access
[Remote access output port]	PC output port for remote access

5.7.5 [Version information]



This menu is for information purposes only.

[Vending machine type]	Machine type, always "SÜ" for SÜ
[Serial number]	Serial number of the vending machine
[Vending machine version]	1st position: 1 for open at the bottom 2nd position: 1 for light grid 3rd position: 1 for lift 4th position, 0 spindle/ 1 belt
[Machine version]	Number of chutes per level, e.g. 7776655 = 1st level 7 chutes, 2nd level 7 chutes, etc.
[HMI hardware]	e.g. armv71
[HMI kernel version]	for programmers only
[HMI software version]	Revision number of the software
[VMI variant]	e.g. HAEs
[VMI version]	e.g. OB04
[VMI serial number]	Control unit serial number

5.7.6 [Multimedia]

In this menu, images are transferred from an inserted USB stick to the vending machine.



Slide show

The thumbnails are moved from the left column to the right column by "drag and drop". The images in the right column are displayed according to the [Slideshow settings].

Product images

Touch the copy icon  →  to transfer the images to the vending machine.

The images stored here are made available in the [Configuration] menu to place product images, selection screens and info images on the selections. See "5.5.1 [Configuration]" on page 71.

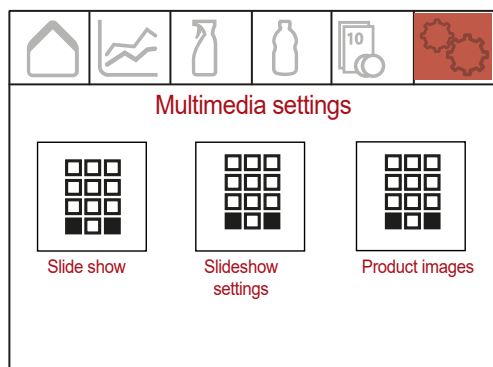
Creating a folder on the USB stick:

Create a new folder on the USB drive letter in Windows Explorer and name it "HMI".

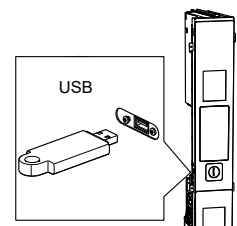
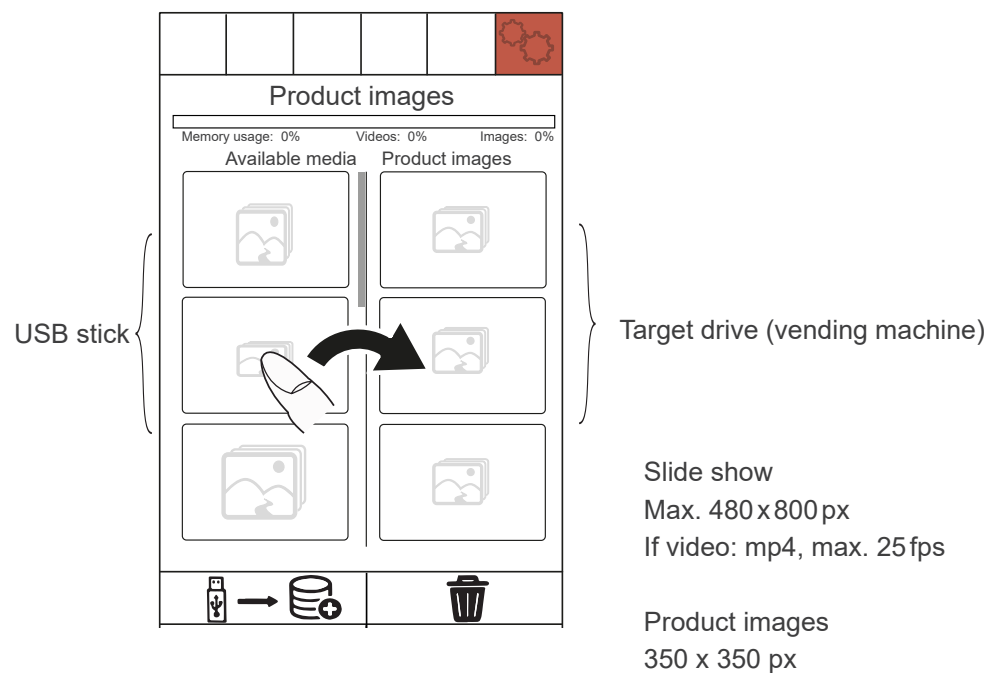
Open the HMI folder.

Create another folder in the HMI folder and name it "Media".

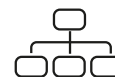
Then copy the images into the MEDIA folder (path: \HMI\Media\).



[Slideshow]	When the vending machine is idle, photos or videos are displayed.
[Slideshow settings]	Set display duration and time until change
[Product images]	The images of [available media] and images [product images] located on the vending machine are managed here.



5.7.7 [Network settings]



[Modem connected] tab

[Control unit] tab

[Telemetry] tab

Select [control unit] and then [Next]

You can edit the following [Network settings]:

- IP address
- Broadcast address
- Gateway address
- Network mask

5.7.8 [Language settings]



[Customer menu]

The operating language for the sales mode is set in the [Customer menu]. This is symbolised by the flag at the top of the display. Below that, there are other languages to choose from.

After selecting another language, you must finish with [Save] and [Apply].

[Service menu]

The operating language for the operator or the service technician is set in the [Service menu].

[Active languages]

The [Active languages] tab concerns the languages that are temporarily available for sale.

They are in sales mode at the bottom left, symbolised by a flag, and can be selected by the customer.

You can switch on the active languages  or switch them off , accordingly they are either displayed to the customer or not.

5.7.9 [Access control]



TIP

Please note that [Access control] is switched off at the factory to allow the operator to set up the new vending machine. All menus are then displayed and available.

You can switch access control on or off:

Access control	Display
Switched off	[Activate access control] 
Switched on	[Activate access control] 

If you have activated access control, a code is requested for certain menus.

If the filler has forgotten the code, the operator with the higher rights must edit the filler's code.

- 1 If you have activated access control, you can use the [Add] button.
- 2 Enter the name of the user here. The keypad is displayed below.
- 3 Use the right/left arrow keys to assign a role: Filler - Operator - Technician ...
- 4 Set the code here; it must be 4 to 10 digits. Only when your user has been created correctly can you use the [Save] button.

5.8 Menu structure

Not all menu items can be selected.

Tab 1 [Start menu]  Motors in end position Test vend Diagnostics Statistics transmission Fill change Maximise fill levels	Tab 2 [Statistics/Data]  Summary Sales Total sales Journal Data transfer Cashing up Cash statistics Error statistics	Tab 3 [Cleaning]  Screen cleaning Full cleaning
Tab 4 [Products]  Configuration Test vend Age verification Coupling motors Alternative motors Shelf configuration Advanced configuration Deal configuration Food safety Fill levels Product classes Dispensing without lift	Tab 5 [Payment systems]  General Coin mechanism Banknote reader Cashless Token Tube inventory	Tab 6 [Machine configuration]  Service functions Time settings Refrigeration unit General General Display/illumination HMI/communication Version information Multimedia Network settings Language settings Access control

6. Role table

Individual menu items may not apply to your vending machine.

Tab	Menu	Function	User	Filler	Operator	Technician	Sielaff
Role description			Without rights (At the beginning of the service menu)			Service technician from the customer	Sielaff technician with all rights
Start menu	Whole page	Navigation	1	1	1	1	1
	Full cleaning		0	1	1	1	1
	Test vend		0	1	1	1	1
	Module test		0	1	1	1	1
	Read out statistics		0	1	1	1	1
	Fill change		0	1	1	1	1
	Show errors		1	1	1	1	1
	Switch to EcoMode		0	1	1	1	1
Show statistics	Whole page	Navigation	1	1	1	1	1
	Summary of short-term statistics		0	0	1	1	1
	Delete short-term statistics		0	1	1	1	1
	Vends (short term per selection)		0	1	1	1	1
	Total sales		0	0	1	1	1
	Journal		0	1	1	1	1
	Search		0	1	1	1	1
	Delete journal		0	0	1	1	1
	Data transfer	Read out statistics without reset	0	1	1	1	1
		Read out statistics with reset	0	1	1	1	1
		Read out journal	0	1	1	1	1
		Read out configuration	0	1	1	1	1
		Read out logs	0		1	1	1
		Read configuration	0	1	1	1	1
		SW update	0	1	1	1	1
	Cashing up		0	0	1	1	1
	Cleaning operations		0	1	1	1	1
	Tube levels		0	1	1	1	1
	Telemetry				1	1	1
Cleaning	Whole page	Navigation	1	1	1	1	1
	Screen cleaning		1	1	1	1	1
	Full cleaning SÜ		0	1	1	1	1

Product configuration	Whole page	Navigation	2	1	1	1	1
	Configuration		2	1	1	1	1
	Configure ingredients		2	1	1	1	1
	Shelf configuration		2	2	1	1	1
	Test vend		0	1	1	1	1
	Age verification		2	1	1	1	1
	Alternative motors		2	2	1	1	1
Payment system configuration	Whole page	Navigation	2	2	1	1	1
	General		2	2	1	1	1
	Coin mechanism		2	2	1	1	1
	Banknote reader		2	2	1	1	1
	Cashless 1		2	2	1	1	1
	Cashless 2		2	2	1	1	1
	Token		2	2	1	1	1
	Hopper		2	2	1	1	1
	Printer		2	2	1	1	1
Machine configuration	Whole page	Navigation	1	1	1	1	1
	Service codes		2	2	1	1	1
	Date/time		1	2	1	1	1
	Refrigeration unit		2	2	1	1	1
	General		2	2	1	1	1
	Version info		1	1	1	1	1
	Multimedia		2	2	1	1	1
	Network settings		2	2	1	1	1
	Country settings		2	2	1	1	1
	Access configuration		2	2	1	1	1
Test vend	Whole page	Navigation	0	0	0	0	0
	Start sale		0	1	1	1	1
	Start sale (with credit)		0	1	1	1	1
Fill change	Whole page	Navigation	2	0	1	1	1
	Empty all tubes		0	1	1	1	1
	Bring tubes to target		0	1	1	1	1

0 = Not displayed.

1 = Full access.

2 = Displayed but cannot be used (greyed out).

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