



User and maintenance manual

Narrow Stack

Extra Small	SVE C36-XS
Small	SVE C47-S
Medium	SVE C48-M
Large	SVE C4X-L



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1 GENERAL ADVERTISEMENT	3
1.1 Purpose of this manual	3
1.2 To whom this manual is addressed.....	4
1.4 Manufacturer	6
1.5 Service centers.....	6
1.6 Warranty.....	7
1.6 General safety warnings.....	9
1.7 Security symbols and Pictograms	12
2 VENDING MACHINE IDENTIFICATION.....	14
2.1 Identification Plate	14
2.2 General Description.....	15
2.2.1 Models Name	15
2.3 Technical features	16
2.4 Description of components	17
3 TRANSPORT, STORAGE AND INSTALLATION	18
3.1 Transport and Storage.....	18
3.2 Unpacking	19
3.2.1 Removing the wooden bases	20
3.2.2 Supplied Accessories	20
3.3 Installation	21
3.3.1 Installation environment features.....	21
3.3.2 Placement	22
3.3.2.1 Installation spaces and spaces of use.....	23
3.3.3 Connection to power mains	24
3.3.4 Stability.....	25
3.3.5 Installing the coin mechanism.....	26
3.3.5.1 Coinmech Connection MDB / Executive.....	27
3.3.6 Selection Labor Installation.....	28
3.3.6.1 Matching Selections to Columns	28
4 USE AND OPERATION OF THE VENDING MACHINE.....	29
4.1 Proper Use	29
4.1.1 Distribution capacity	29
4.2 Access to internal parts	30
4.2.1 Safety devices	31
4.2.2 Board	32
4.2.2.1 SVE01 Board	32
4.2.3 Operation NarrowStack Mechanism (N.S.)	33
4.2.3.1 Regulating the baffle (rear spacer)	34
4.2.3.2 Regulating the delivery shelves	35
4.2.3.3 Setting of column setup 1D/2D/3D/4D.....	35
4.2.4 Products Charging.....	36
4.2.5 Refrigerant System Operation	37
4.2.5.1 Control Unit CAREL ir33 Description and Operation.....	38
4.2.5.1.1 Display.....	38
4.2.5.1.2 Keyboard.....	40
4.2.5.1.3 Displaying and setting the set point	41
4.2.5.1.4 Errors List.....	41
5 MAINTENANCE.....	42
5.1 Warnings	42
5.2 Recommended cleaning products.....	43
5.3 Cleaning safety devices.....	43
5.4 Preventive maintenance	43
5.5 Cleaning operations.....	44
5.5.1 Daily Cleaning	44
5.5.2 Weekly Cleaning	44
5.5.3 Monthly Cleaning.....	44
5.5.4 Yearly Cleaning	45
5.6 Assembly / Disassembly for Maintenance.....	45

5.6.1 LED Replacing	45
5.6.2 Door Gasket Replacement	45
5.6.3 Replacement Cam / Micro Motor Mechanism	46
6 TROUBLESHOOTING	47
6.1 Door Errors.....	47
6.2 Mechanism Errors	48
6.3 Payment Device Errors.....	49
6.4 Refrigerant System Errors	50
7 OUT OF ORDER OPERATION.....	54
7.1 Disposal.....	54
7.2 Person in charge of disposal.....	54
7.3 Sanctions.....	54



1 GENERAL ADVERTISEMENT


1.1 Purpose of this manual

 Before proceeding to install and use the vending machine, it is necessary to read the contents of this manual.

This manual is an integral part of the machine and must therefore be kept intact and available to hand for the machine's entire productive life.

Any other document sent by SandenVendo is to be attached to the manual to form a complete dossier of the automatic vending machine.

  **Caution:** failure to follow the instructions contained in this manual may involve damages to the machine and/or personnel.

 Should this manual be **lost or damaged**, you may request a copy from the manufacturer: please enclose the serial number of your vending machine with your request.

1.2 To whom this manual is addressed

The manual contains the correct procedures for the *loading, use, routine / special maintenance and installation* of the Vending Machine.

This manual is addressed to those persons in charge of loading, cleaning and routine maintenance of the machine (**Filler**), to the final user of the vending machine (**User**) and to those persons in charge of installation, adjustment, special maintenance of the vending machine (**Maintenance Engineer / Skilled technician**).

User

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance.


Cleaning and user maintenance shall not be made by children without supervision.

Operator

The intervention of the operator on the vending machines is only intended for the loading and routine cleaning operations to be carried out in accessible areas with the sole use of the door opening key, and without the use of other tools.

Maintenance Engineer / Skilled technician

The intervention of the maintenance engineer is required for all operations that require the use of tools for access to potentially hazardous areas, the installation of the vending machine, the start-up and the programming of the functions.

 The maintenance technician must be previously trained and instructed on the interventions to be carried out on the vending machine and limit them to what is within his competence.

It is the responsibility of the purchaser to make sure that the maintenance personnel are trained and aware of all the information and instructions indicated in the manual.


1.4 Manufacturer

SandenVendo Europe in Europe has been making significant advancements in the vending industry for many decades and is a powerful partner for excellence in quality, reliability and service.

SandenVendo Europe are a “one-stop shop supplier”, offering a wide variety of vending equipment for hot and cold beverages, snacks and ice cream, but also related products such as sophisticated payment systems and premium coolers.

1.5 Service centers

Any technical problems that may occur can be resolved by consulting this manual; in the event of anomalies or malfunctions that cannot be resolved, contact the Service Centres at the numbers shown on the inside cover.

 In case of a call it is good to know how to indicate the data reported on the vending machine serial plate.

1.6 Warranty

The Warranty on the Vending Machine components, starting from the date shown on the delivery note, is for 12 months.

The warranty includes exclusively the parts replaced, with labour excluded.

Shipping cost of machines, defective parts and spare parts are always at the customer's expense.

The Warranty does not include, damages to the vending machine caused by:


- Transport and/or handling
- Operator errors
- Lack of maintenance as explained in this manual
- Failures and/or breakages not due to malfunction of the vending machine
- Damage which may be caused, directly or indirectly, by persons, things or animals
- Damage deriving from labour linked with the installation, connection to the main supplies.
- Improper use of the machine.

The manufacturer's responsibility is confined to the correct use of the machine, in the limits indicated in this manual.

"SandenVendo Europe S.p.A" declines all responsibility for any damages caused to persons and/or things as the result of:

- Incorrect installation
- Use of unoriginal spare parts
- Execution of changes unforeseen/unauthorized by the manufacturer
- Improper use of the machine
- Connection to inadequate supply systems and not in conformity with the regulations in force

1.6 General safety warnings

-  ▪ Carefully **read the manual** before starting or loading the vending machine
- The vending machine is constructed in a workmanlike manner. Its service life, electrical and mechanical reliability will be more efficient if it will be used correctly and regular maintenance will be carried out.
- This machine is not suitable for outside installation.
- This machine is not suitable for installation in areas where water jets are used.
- Protect the vending machine against weather conditions.
- Never position the vending machine in direct sunlight.
- To prevent hazards due to machine instability, secure the machine according to the instructions.
- Install the appliance so that the electrical plug can be easily accessed afterwards.
- The use of adapters, multiple sockets and/or extensions is forbidden.
- Use a differentiated protection system.
- If the power cable is damaged, it must be replaced by the manufacturer or by one of its technical support personnel or by a qualified electrician.

- Only maintenance technicians should remove the protective covers.
- Always read the programming manual before operating the electronic board settings
- Use only spare parts authorized by the manufacturer
- **WARNING:** Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.
- **WARNING:** Do not damage the refrigerant circuit.
- **WARNING:** In order to reduce flammability hazards the installation of this appliance must only be carried out by a suitably qualified person.
- Original instruction in Italy.

The pictures and illustrations in this document are only indicative. **SandenVendo Europe S.p.A.** recalls that the technical and performance of products can change without notice.

“SandenVendo Europe S.p.A.”. reserves the right of making changes on their vending machines without any advice; moreover they declare that the vendors listed in this manual are in conformity with the following directives: **2006/42/CE** (EC markings) and **2004/1935/CE**.

“SandenVendo Europe S.p.A.” assumes no liability for the correctness of the contents or damages caused by using this manual.

“SandenVendo Europe S.p.A.” reserves the right to make changes to this manual without prior notice.

1.7 Security symbols and Pictograms

In the manual and/or on the machine, hazardous areas are shown with signs, plates, symbols and icons that indicate danger or an obligation in each case.

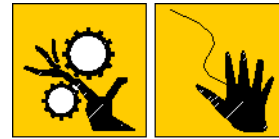
Description	Pictogram / Secure Symbol					
Indicates information regarding personnel safety and machine integrity.						
Compulsory for all personnel involved						
Compulsory for all personnel involved to wear protective gloves during maintenance of the vending machine						
Compulsory for all personnel involved to protective clothing during maintenance.						
Additional information is given.						
Before carrying out this operation, refer to the Instruction Manual.						
In case of special operations and/or anomalies, a particular mechanical adjustment and/or electrical setting may be required.						
Indicates a warning, failure to comply may involve damage to the vending machine.						
Danger Indication of mains voltage.						
Danger Indication of the presence of cutting hazard.						
Symbol ISO 7010W021 Warning Risk of fire / flammable materials						
Warning Danger Compulsory Indicates the danger of electric shocks and mechanical risks.						
Caution The vending machine must be fitted with a grounding system.	<table border="1"> <tr> <td data-bbox="884 1883 943 2083">WARNING This vendor must be properly grounded</td> <td data-bbox="943 1883 1050 2083">ACHTUNG Dieses Gerät muß ordnungsgemäß geerdet werden</td> <td data-bbox="1050 1883 1157 2083">ATTENTION Le distributeur doit être connecté à la terre</td> <td data-bbox="1157 1883 1264 2083">ATENCIÓN La máquina debe estar correctamente conectada a tierra</td> <td data-bbox="1264 1883 1445 2083">ATTENZIONE Il distributore deve essere collegato a terra</td> </tr> </table>	WARNING This vendor must be properly grounded	ACHTUNG Dieses Gerät muß ordnungsgemäß geerdet werden	ATTENTION Le distributeur doit être connecté à la terre	ATENCIÓN La máquina debe estar correctamente conectada a tierra	ATTENZIONE Il distributore deve essere collegato a terra
WARNING This vendor must be properly grounded	ACHTUNG Dieses Gerät muß ordnungsgemäß geerdet werden	ATTENTION Le distributeur doit être connecté à la terre	ATENCIÓN La máquina debe estar correctamente conectada a tierra	ATTENZIONE Il distributore deve essere collegato a terra		

System contains refrigerant under high pressure.
Do not tamper with the system. It must be serviced by qualified persons only.

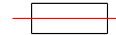


Caution

Hazardous Area pay extreme care whilst operating the vend mechanisms



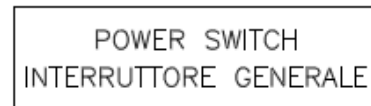
Fuse symbol.



Fuse type and state indicator.



"Power Switch" button presence indicator



Ground connection indicator.







ON.

OFF.



Identification Plate

Vending machine identification and main technical data

Manufactured by SandenVendo Europe S.p.A.		
Regione Cavallino 2 - 15030 Coniolo (AL) Italy		
MOD. SVE	SN	
MAX _____ A	V~	_____ Hz
☀️ MAX _____ W	NOMINAL POWER _____ W	
REFRIGERANT _____ Kg	GWP _____	
T eq. CO2: _____	F1 _____	F2 _____
The fluorinated greenhouse gases are contained in hermetically sealed equipment Equipment contains fluorinated greenhouse gases		
CL _____ °C	HR _____ %	C.F.C. FREE
		
RoHS CONFORME		CYCLOPENTANE Made in Italy

Equipment only suitable for internal use indicator.



Recycling this product goes toward reducing the need of new materials and the accumulation of waste.



Recycling

Lo smaltitore al ricevimento di un'apparecchiatura con indicato il simbolo del cassone barrato ha l'obbligo, prima di smaltirla, di selezionare i rifiuti **RAEE** e di renderli eventualmente disponibili ad un eventuale recupero.



Final inspection certificate.

FINAL INSPECTION CHECK			
INSULATION TESTED	<input type="checkbox"/>	HI.POT. TESTED	<input type="checkbox"/>
COOLING UNIT TESTED	<input type="checkbox"/>	MAIN BOARD SET-UP AND TESTED	<input type="checkbox"/>
VEND MECHANISM TESTED	<input type="checkbox"/>	LIGHTS WORKING	<input type="checkbox"/>
SAFETY CUT-OUT SWITCH TESTED	<input type="checkbox"/>	ALL DOORS CHECKED FOR PROPER CLOSING	<input type="checkbox"/>
MACHINE CLEAN	<input type="checkbox"/>	FINAL ACCEPTANCE	<input type="checkbox"/>

2 VENDING MACHINE IDENTIFICATION

2.1 Identification Plate

Each SandenVendo vending machine is identified by a model name and a specific serial number, which can be found on the plate, located on the outside on the back of the vending machine and inside above the drawer.

The plate is the only one recognized by the manufacturer as the vending machine identification and contains all the data that allow the manufacturer to provide any type of technical information and to facilitate the management of spare parts.

The following data are shown on the plate:

The diagram shows a rectangular identification plate with various technical fields. Blue boxes with arrows point to specific parts of the plate, labeled as follows:

- Name of the manufacturer Address and Logo:** Points to the top left section containing 'Manufactured by SandenVendo Europe S.p.A. Regione Cavallino 2 - 15030 Coniolo (AL) Italy' and the Vendo SANDEN logo.
- Model:** Points to the 'MOD. SVE' field.
- Serial Number:** Points to the 'SN' field.
- Supply voltage:** Points to the 'MAX ___ A ___ V~' field.
- Maximum current draw:** Points to the 'MAX ___ W' field.
- Max power of the lamp used:** Points to the 'NOMINAL POWER ___ W' field.
- GWP value expressed in equivalent tons of CO²:** Points to the 'GWP ___' field.
- Climate class:** Points to the 'CL. ___ °C' field.
- Conformity marking:** Points to the 'CE' and 'RoHS CONFORME' markings.
- Relative humidity:** Points to the 'HR ___ %' field.
- Electrical power absorbed:** Points to the 'NOMINAL POWER ___ W' field.
- Global warming potential:** Points to the 'GWP ___' field.
- Fuses:** Points to the 'F1' and 'F2' fields.
- Type and quantity of refrigerant gas:** Points to the 'REFRIGERANT ___ Kg' and 'CFC FREE' fields.

i An identical plate is placed above the cooling system only with the data concerning the system itself.



Attention!

It is absolutely forbidden to tamper or modify the data plate.



Important!

For any request to the service centers, always refer to this plate, indicating the specific data printed on it.

2.2 General Description

The vending machine is to be used exclusively for the sale and distribution of drinks in bottle or can.

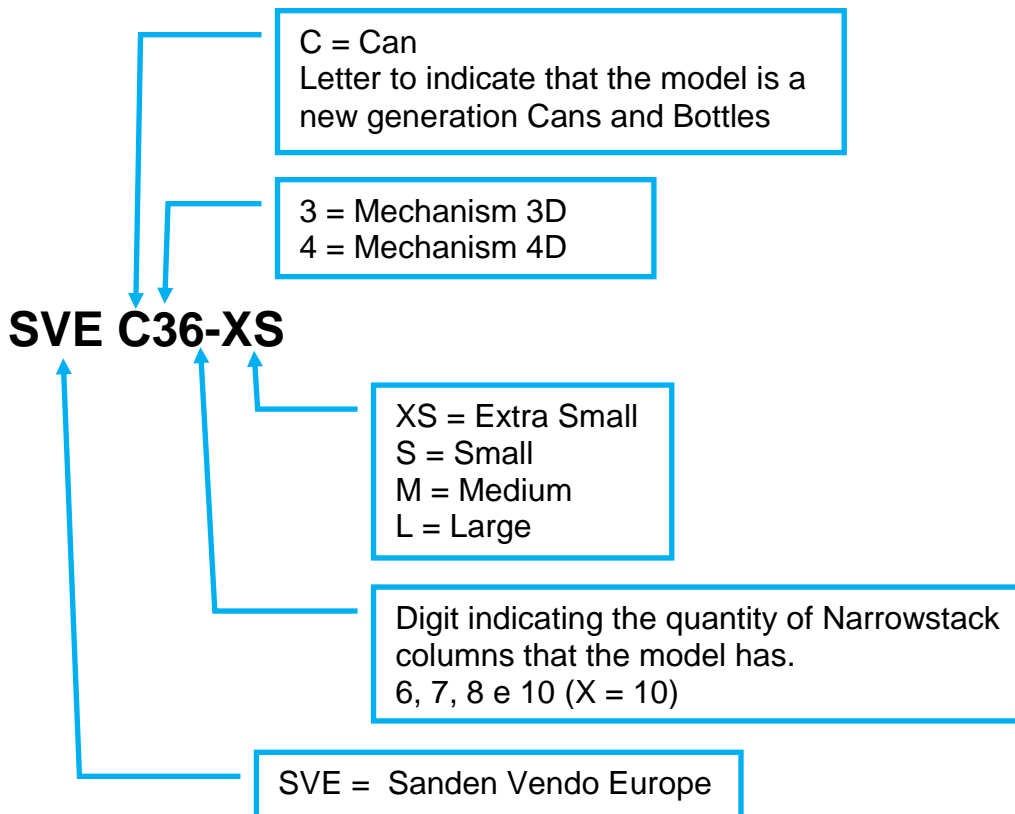
The distribution takes place through a distribution cycle that allows you to take only one product for each cycle. The distribution takes place until exhaustion of the products contained in the vending machine. An alarm allow to notify the user of the status of availability for distribution.

The vending machine is not a refrigerator, but allows you to moderately refrigerate the products that are loaded.

Any other use is to be considered improper use and therefore at risk.

Do not introduce potentially dangerous products into the vending machine due to inadequate temperatures. In this regard, follow the instructions on the products for the conservation rules and the expiration dates of the same.

2.2.1 Models Name



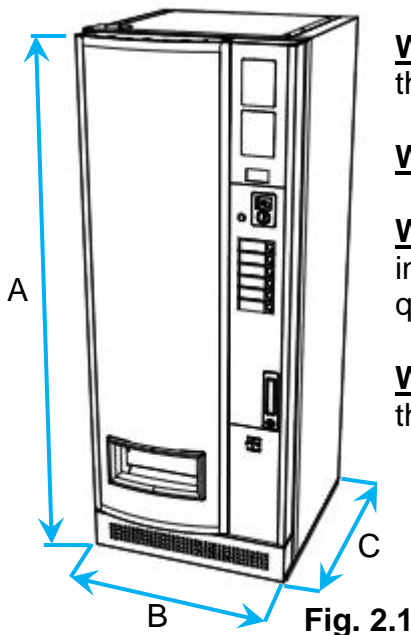
2.3 Technical features

Bottle and Can	C36-XS	C47-S	C48-M	C4X-L
Dimensions				
Height (A)	1830 mm	1830 mm	1830 mm	1830 mm
Width (B)	650 mm	750 mm	850 mm	1015 mm
Depth (C)	800 mm	955 mm	955 mm	955 mm
Weight	280 Kg	300 Kg	340 Kg	375 Kg
Power supply				
Nominal voltage	220 / 240 V			
Nominal frequency	50 / 60 Hz			
Max. power consumption	650 W	700 W	700 W	700 W
Fuses	F1-T10A ■ F2-T1A			
Refrigeration unit				
Compressor	8.77 cm ³	8.77 cm ³	8.77 cm ³	8.77 cm ³
Expansion	Direct with capillary tube			
Cooling system	Forced air with evaporator 2 fans			
Refrigerant type	* R290			
GWP	3	3	3	3
Refrigerant charge	0.066kg	0.078kg	0.078kg	0.078kg
T e CO2	0,000198	0,000234	0,000234	0,000234
Adjustable temperature range	+1°C up to +25°C			
Climate class	ST (+18°C up tp + 38°C)			
Noise level	< 70 dB			
Electronic control	MDB			
Payment system protocol	MDB / Executive			



*Equipment contains flammable gases.

The flammable gases are contained in hermetically sealed equipment conform at IEC 60335-2-89 norms



WARNING: Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

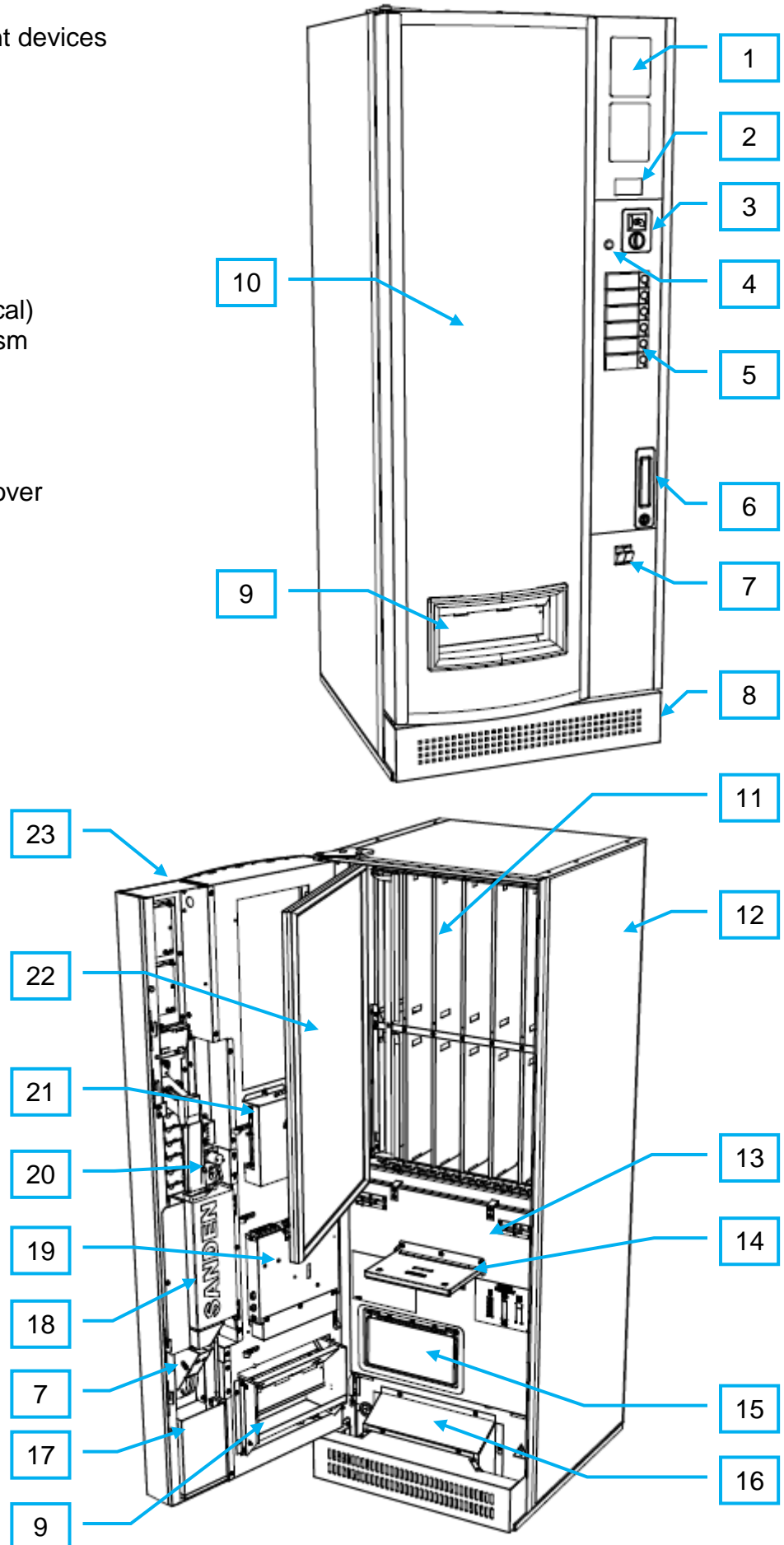
WARNING: Do not damage the refrigerant circuit.

WARNING: In order to reduce flammability hazards the installation of this appliance must only be carried out by a suitably qualified person.

WARNING: Don't use electrical and mechanical device, unless they are of the type recommended by the manufacturer.

2.4 Description of components

1. Hole plugs for payment devices
2. Display
3. Coin Insert
4. Coin Return Button
5. Selections Buttons
6. Door Lock
7. Coin Return
8. Lower Grid
9. Delivery Area
10. Illuminated Panel (Decal)
11. Narrowstack Mechanism
12. Cabinet
13. Lower Internal Door
14. Support for Products
15. Product Exit Area
16. Refrigerant System Cover
17. Coin Box
18. Coinmech
19. Control Panel
20. Coin Return Motor
21. Board
22. Upper Interior Door
23. Door



3 TRANSPORT, STORAGE AND INSTALLATION

3.1 Transport and Storage

Unloading from the vehicles of transport and handling of the vending machine must be carried out only by competent personnel and with the use of suitable equipment's for the load to be handled.

The vending machine is positioned above two wooden bases, protected by a bag, by four corners and by a retractable film.

Use a forklift, power-driven or manual, to unload the vending machine from the vehicles of transport, the wooden bases allow the sockets on the 4 sides of the vending machine.

⚠ Attention!

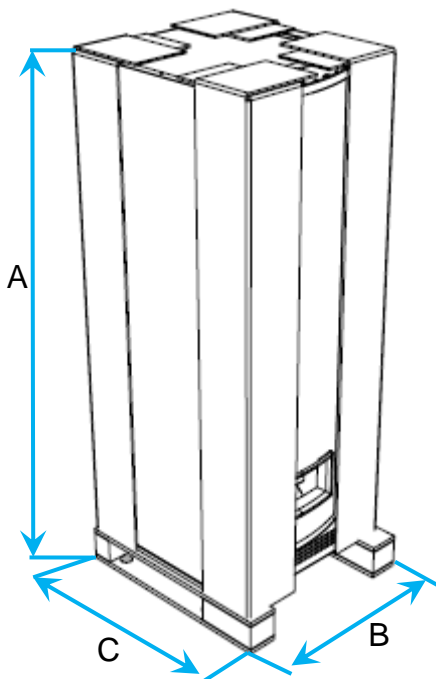
It is forbidden to transport and / or place the vending machine in a horizontal position;
It is forbidden to drag or lift the vending machine with ropes, slings or other;
Avoid maneuvers that can cause sudden jolts and impacts to the vending machine.



In the event the machine is **mistakenly laid horizontally**, place in the upright position and **wait at least 12 hours** before switching on; otherwise, damage may be caused to the cooling system.



If the vending machine is not used immediately or is stored for long periods, check that it is correctly packaged and positioned vertically.



Storage must be carried out in closed but well ventilated places that do not have particular harmful characteristics to the machine components, especially the electronic ones. It is necessary that the environment is dry and with temperatures not lower than 1°C.

Protect the unpainted parts from corrosion with suitable greases or sprays; if necessary, stow it with dehydrating salts.



As long as the vending machine has the original packaging, including wooden bases, it is possible to overlap two.

⚠ Attention!

Unpacked vending machines are not stackable.

MODEL	A (mm)	B (mm)	C (mm)	GROSS WEIGHT (Kg)
C36	1960	665	810	300
C47	1960	765	965	320
C48	1960	865	965	360
C4X	1960	1030	965	395

3.2 Unpacking

Upon receipt of the vending machine check that has not been damaged during transport or that the packaging has not been tampered.



The packaging must be intact, ie:

- It must not present dents, signs of shocks, deformations or breakages of the container;
- It must not have wet areas or signs that could suggest that the casing has been exposed to rain, frost or heat;
- It must not show signs of tampering.



If damaged on receipt, any nature, immediately make a claim to the carrier and notify either the importer or the dealer.



The packaging materials must be carefully removed in order to not damage the distributor, inspect the inside and outside of the container to check for any damage.

- Remove the transparent protective film, the four corners and the bag from the vending machine;
- After removing the external packaging, take the key located in the coin return compartment;
- Open the door, paying attention to the snap movement of the handle;
- Remove the packaging components or equipment supplied which could prevent the correct operation of the vending machine;
- Remove the wooden bases and install the feet as indicated in paragraph 3.2.1

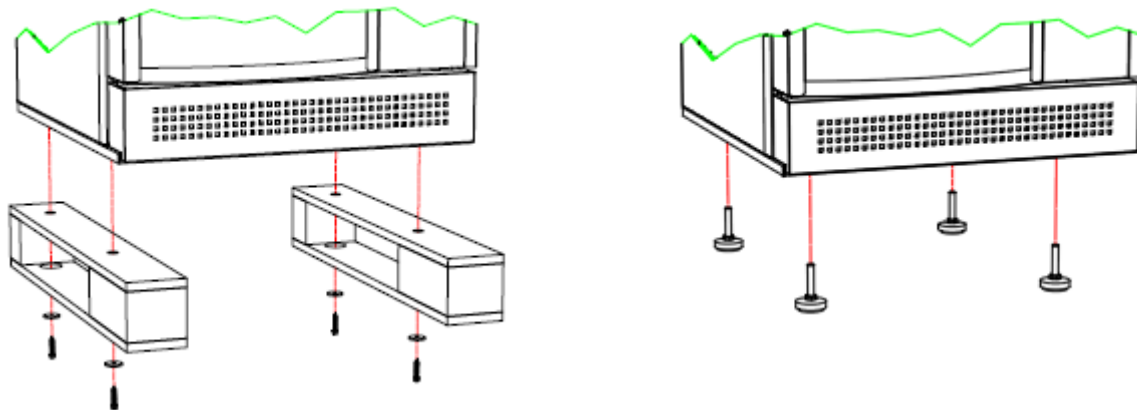


The packaging materials must be disposed of respecting the environment..



SandenVendo declines all responsibility for damage caused by failure to observe the precautions listed in this section.

3.2.1 Removing the wooden bases



- Use a forklift, power-driven or manual, to lift the vending machine from the floor with frontal or rear gripping;
- Using a size 10 adjustable spanner (we recommend using a ratchet wrench) remove the screws that fasten the wooden bases to the machine: 2 screws each base;
- Fit 4 feet on to the base of the machine;
- Rest the machine on the floor;

3.2.2 Supplied Accessories

The following "items" are supplied with the distributor:

- » Use and Maintenance Manual
- » Programming Manual
- » A3 sheet with wiring diagram
- » 4 feet
- » 2 Fuses 10A 250V
- » 12 screws
- » 2 Micro Activation Keys
- » Sheet A4 Declaration of Gas Conformity
- » Sheet A4 EC Declaration
- » Electrical Compatibility Test Sheet
- » 2 Keys for the lock

3.3 Installation



Before proceeding with **the installation** and use of the vending machine, it is necessary to **read** the contents of **this manual**.



The installation must be carried out by specialized personnel trained to use the appliance according to the manufacturer's instructions and the regulations.

It is necessary to know and respect the safety warnings and danger warnings contained in the manual to work in conditions of minimum risk.

The Vending Machine complies with the latest directives as shown in their Declaration of Conformity, therefore can be installed in both public and industrial environments as long as they comply with the aforementioned points



Attention!

Do not move the vending machine if loaded with products to avoid damage to the appliance.



Attention!

Make sure that the ventilation grilles are always free and not obstructed by dust or similar to ensure perfect ventilation of the refrigeration unit.



Attention!

Do not damage the refrigerant circuit.



SandenVendo declines all responsibility for inconveniences due to non compliance with the positioning rules.

3.3.1 Installation environment features



Attention!

The appliance must be installed in environments / rooms where the temperature does not exceed 32°C and less than 10°C; otherwise the electrical parts (compressor) may be subject to overheating or may not work properly.



Attention!

The appliance is not suitable for installation in outdoor environments and in particularly humid or dusty places without the presence of the "Outdoor Kit".



Attention!

The appliance it is not suitable for installation in environments where water jets are used.



Attention!

Do not place the appliance near heat sources.



Attention!

Do not place the vending machine in direct sunlight.



3.3.2 Placement

Attention!

Make sure that the capacity load of the surface on which the vending machine is positioned is adequate to support the weight declared by the manufacturer;

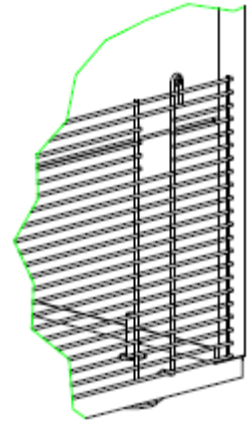
Attention!

Before connecting vending machine, make sure that the mains power supply has the correct voltage, frequency and power as those indicated on the technical data plate of the vending machine.

Attention!

The appliance must be connected to a power supply network with grounding in compliance with current legislation. The manufacturer can not be held responsible for any damage caused by the lack of grounding system.

- Pull out the service cord from the back of the vending machine through the slot in the rear grill.
- Position the vending machine in the place of installation, operate with caution, avoid maneuvers that can cause sudden jolts and impacts to the machine.
- The appliance must be installed in such a way that the plug is accessible after installation.
- Air circulation is vital for the refrigeration system, check that the distance between the rear of the distributor and any obstacle (e.g. wall) is at least equal to 10 cm (100 mm).
- For optimal operation, we recommend positioning the vending machine on perfectly flat surfaces. Any unevenness in the floor can be compensated by adjusting the screw legs of the distributor in order to obtain perfect leveling and guarantee stability.
- Make sure that the ventilation grilles are always free and not obstructed by dust or similar to guarantee perfect ventilation of the cooling unit..
- If the installation takes place in safety evacuation corridors, make sure that there is still enough space for passage even with door open of the vending machine.
- To ensure smooth operation, always keep the vending machine in perfect clean condition.



In the event of extraordinary maintenance or repair / replacement of some components, the possibility of rotating the appliance must be provided, in order to be able to access the rear part.

Attention!

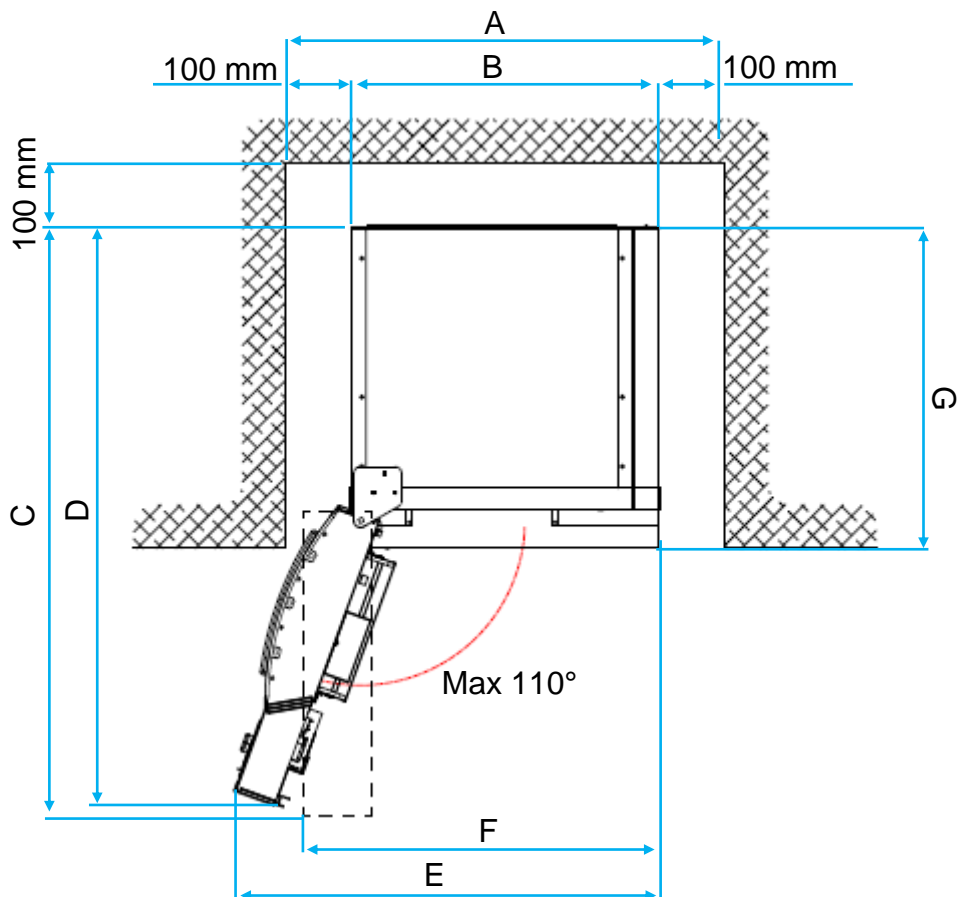
SandenVendo Europe declines all responsibility for damages caused to people or things due to:

- Incorrect installation.
- Improper power supply.

3.3.2.1 Installation spaces and spaces of use

Air circulation is vital for the refrigeration system, check that the distance between the rear of the distributor and any obstacle (e.g. wall) is at least equal to 100 mm

If the installation takes place in safety evacuation corridors, make sure that there is still enough space for passage even with door open of the vending machine

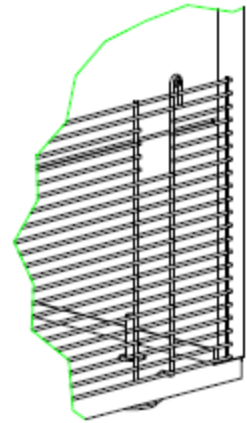


MODEL	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
C36	850	650	1310	1285	910	750	720
C47	950	750	1565	1535	1045	850	900
C48	1050	850	1665	1630	1180	950	900
C4X	1215	1015	1830	1785	1400	1115	900

3.3.3 Connection to power mains

Service Cord Installation

- Pull out the service cord from the back of the vending machine through the slot in the rear grill.



Before completing the electrical connection make the following checks:



Ensure the mains power supply (voltage and frequency) are the same as those indicated on the machine's rating plate, this vending machine must be connected to a 230V, 50 / 60 Hz power mains, each voltage below 216.2V or over 243.8V can cause failures



Ensure that the main power supply outlet is grounded and that, after making the connection, the entire appliance is ground connected.



Ensure that the appliance is positioned so that the plug connecting it to the mains power supply can be easily accessed after installation.



Ensure that the neutral wire is blue; otherwise, you must invert the poles.



Ensure to use a differentiated protection system.



Attention!

- » The use of adapters, multiple sockets and / or extensions is prohibited.
- » Do not remove the grounding pin from the plug, or in any way do not bypass, modify or destroy the grounding system of the vending machine.
- » Do not bend excessively or place heavy objects on top of the service cord.
- » Do not connect the power with wet hands.



» Should you find any problem with the machine service cord or should it be damaged, it must be replaced. For the safety of personnel and to prevent all risks of damages to the machine never replace the service cord, contact the manufacturer or technical support service.



Attention!



» For vending machine with the Outdoor Kit, which have a leakage current that can exceed 10mA, it is recommended to install a differential current device (RCD) that has a nominal operating differential current that does not exceed 30mA

3.3.4 Stability

The stability of SandenVendo vending machines against overturning is guaranteed whether the vending machine is empty, full and / or with the door open.

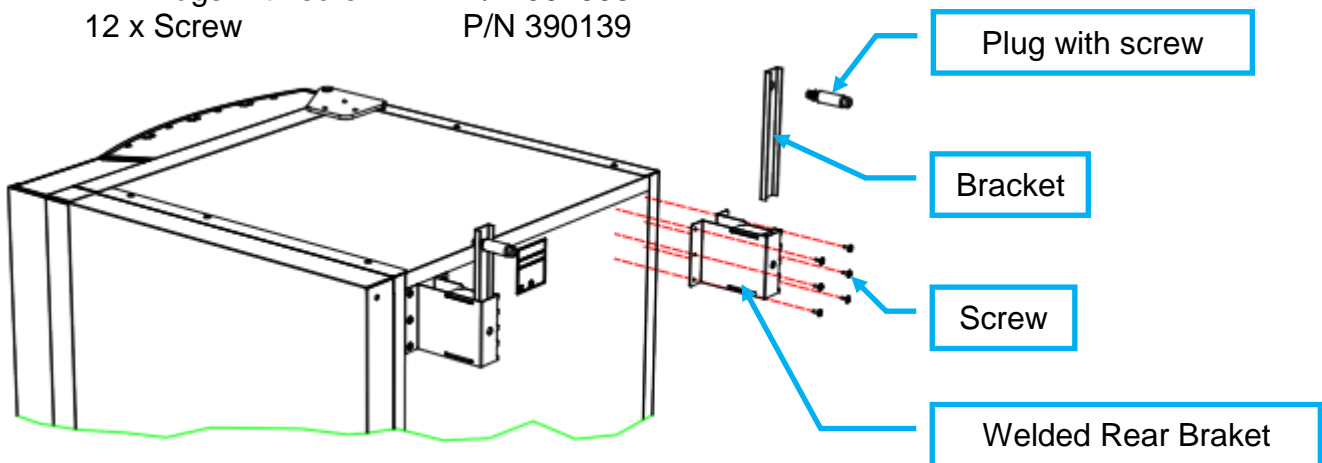
The overturning of the vending machine without external influence is impossible.

However, to protect the machine against vandalism, such as attempts to tilt the vending machine, we recommend to attach one of the following optional kits:

Wall Fixing Kit part number 135078/2

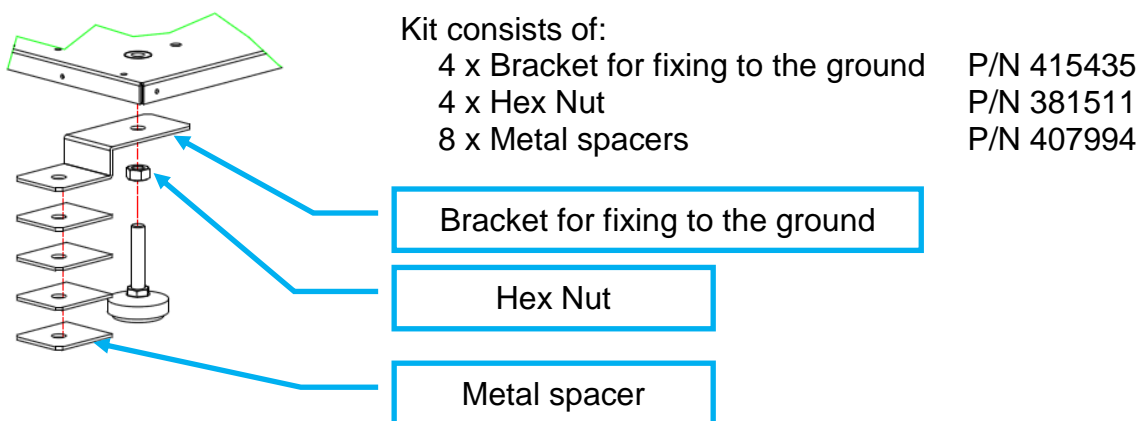
Kit consists of:

- | | |
|-------------------------|--------------|
| 2 x Welded rear bracket | P/N 130461/1 |
| 2 x Bracket | P/N 386460 |
| 2 x Plugs with screw | P/N 391598 |
| 12 x Screw | P/N 390139 |



Ground anchor KIT P/N° 139218/2

Use suitable material for secure fixing the vending machine to the floor.



Attention!

SandenVendo does not assume responsibility for any damage caused by the lack of consulting this instructions. All the operations must be done by authorized personnel.

3.3.5 Installing the coin mechanism

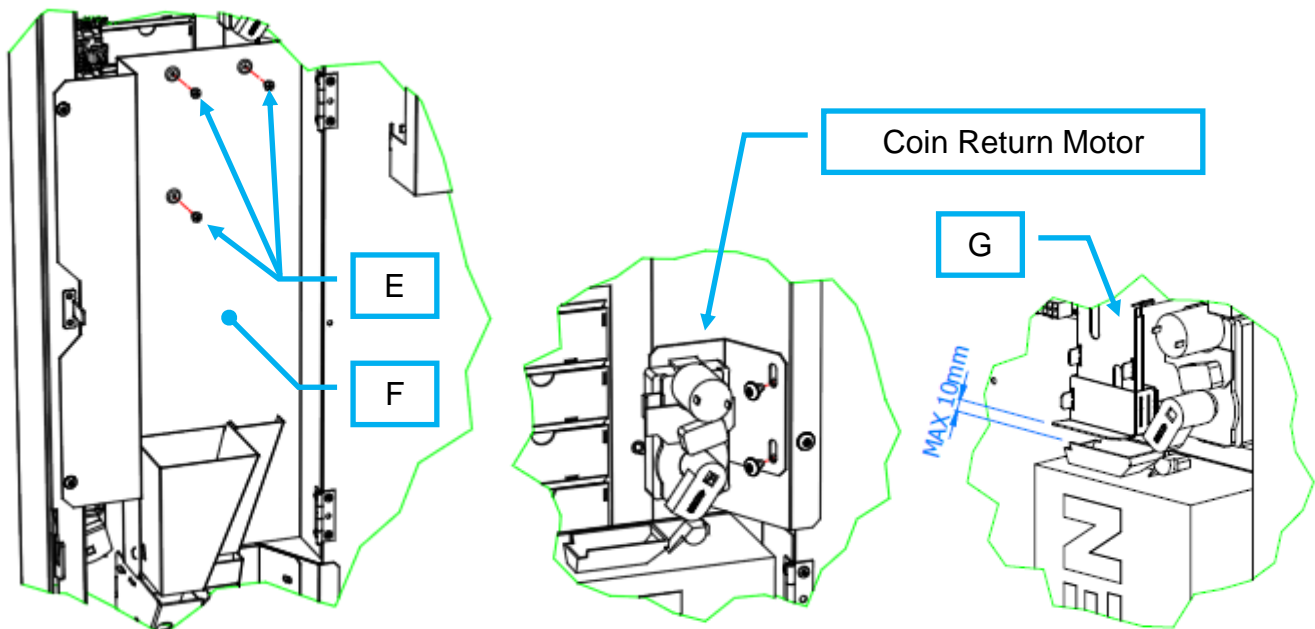
⚠ Attention!

Disconnect the power before making any electrical connections, as you may cause damage to the coin mechanism and/or control board.

⚠ Attention!

These operations are not necessary if using the coin mechanism supplied by SandenVendo Europe Spa.

Hook the coin mechanism on the 3 screws (E) positioned on the coin mechanism support (F). Check that the coin slot on the cash box is in line with the outlet of the coin mechanism (G) and that the distance between the two parts is approx. 10 mm max. Once you have done this, remember to tighten the screws again.

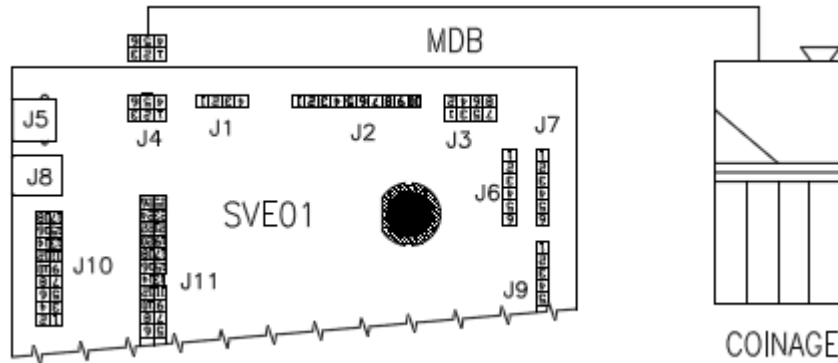


Press the coin return button and check that the mechanism works smoothly. It is important that the selector opens as much as possible. Should this fail to occur, you must again adjust the height of the coin return motor.

3.3.5.1 Coinmech Connection MDB / Executive

MDB

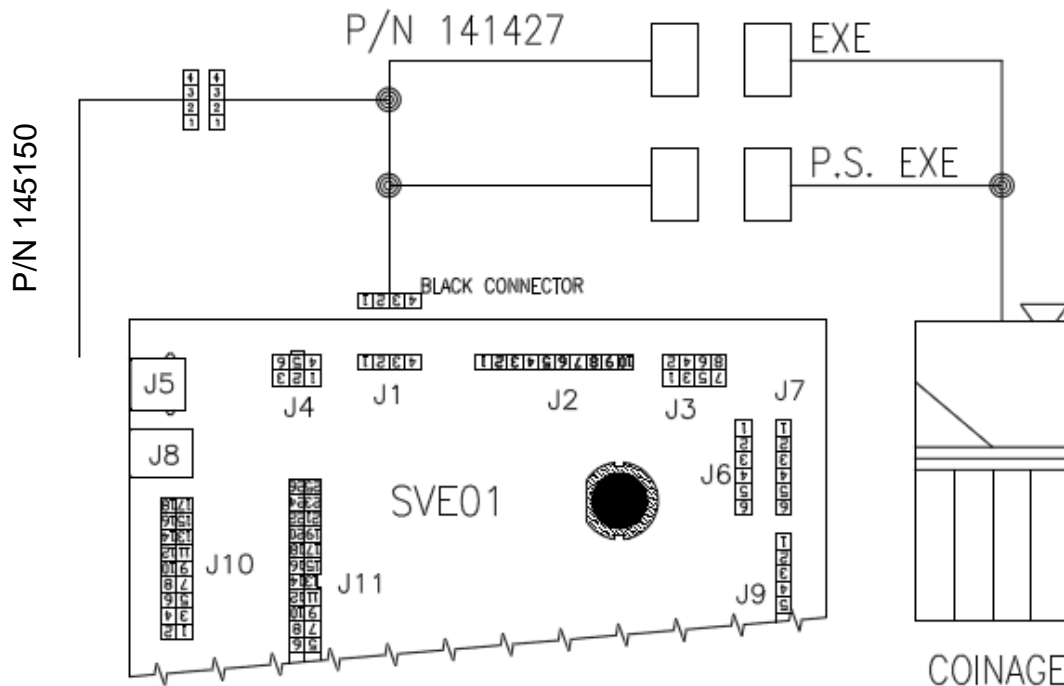
To connect the coinmech in MDB mode, insert the 6-way connector on the SVE01 board in position J4.



Executive

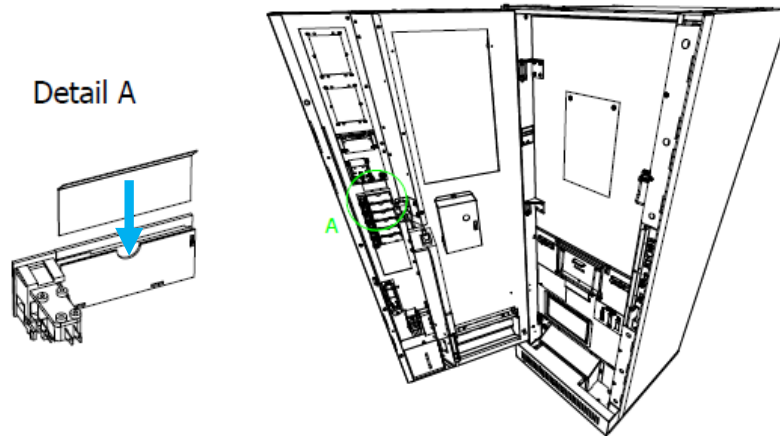
To connect the coinmech in EXECUTIVE mode, it is necessary to use the harness p/n141427 and proceed as follows:

- Insert the black 4-way connector of the harness p/n 141427 in position J1 on the SVE01 board;
- Insert the 4-way female connector of the harness p/n 141427, on the 4-way male connector coming from the harness p/n 145150 connected to the SVE01 board;
- After connecting the harness p/n 141427, the coinmech can be connected;;
- Use the 9-way connector and the 15-way connector of the coinmech by connecting them with the relative counterparts of the wiring harness p/n 141427.



3.3.6 Selection Label Installation

Open the door, unscrew the closing screw of the coin mechanism door, open it and install the product label, inserting the label between the two parts (in transparent plastic). Remember that the first button at the top activates the first column on the right and so on until the last button at the bottom that activates the last column on the left. Close the coin mechanism door.



3.3.6.1 Matching Selections to Columns

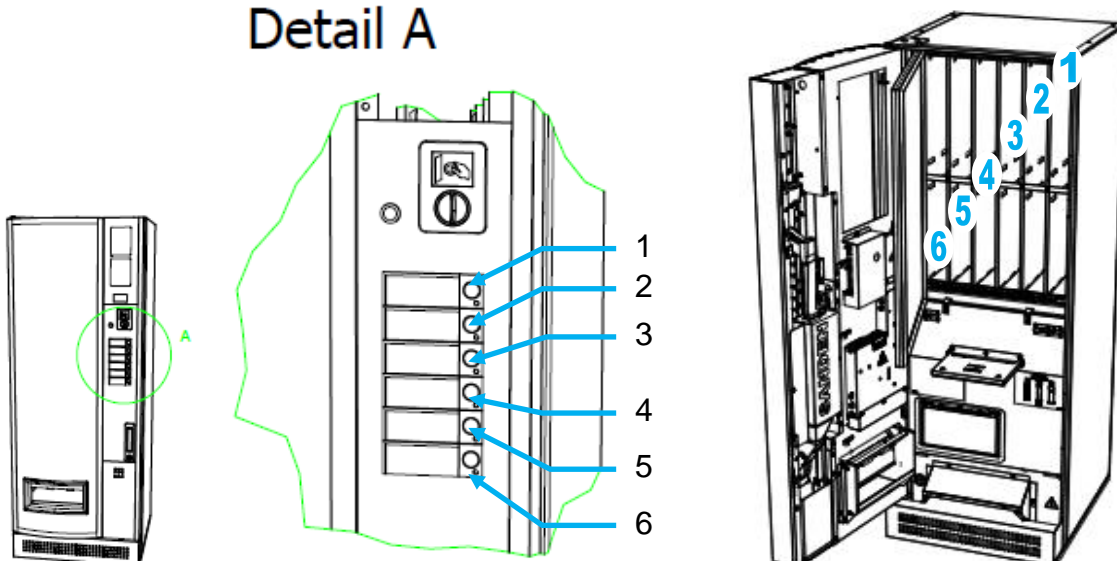
By default, the vending machine selections are combined as follows:

Selection 1 ~ Col. 1
Selection 2 ~ Col. 2
Selection 3 ~ Col. 3
Selection 4 ~ Col. 4
Selection 5 ~ Col. 5
Selection 6 ~ Col. 6
Selection 7 ~ Col. 7
Selection 8 ~ Col. 8
Selection 9 ~ Col. 9
Selection 10 ~ Col. 10

Column 10	Column 9	Column 8	Column 7	Column 6	Column 5	Column 4	Column 3	Column 2	Column 1
<i>Model C4X</i>		<i>Model C48</i>	<i>Model C47</i>	<i>Model C36</i>					

Consult the programming manual to change combinations.

Detail A



4 USE AND OPERATION OF THE VENDING MACHINE

4.1 Proper Use

The vending machine must only be used for the sale and distribution of drink in bottle or can. The distribution takes place through a distribution cycle that allows you to take only one product for each cycle. The distribution takes place until exhaustion of the products contained in the vending machine. An alarm allow to notify the user of the status of availability for distribution.

In normal operation, the vending machine goes into standby status.

By introducing the necessary amount of coins, according to the set price, and pressing the button, relative to the desired product, the dispensing cycle is activated.

Press the button for the desired product.

- the motor of the column, in which the selected drink is located, rotates according to the product to be distributed, causing the product to fall into the delivery area.
- insert your hand into the dispensing area to pick up the product.

4.1.1 Distribution capacity

Model	Mechanism Type	Column quantity	Selection quantity
SVE C36-XS	Narrowstack 3D	6	6
SVE C47-S	Narrowstack 4D	7	7
SVE C48-M	Narrowstack 4D	8	8
SVE C4X-L	Narrowstack 4D	10	10

The “Narrow Stack” columns can sell all cylindrical products with the following sizes:

	Min [mm]	Max [mm]
Diameter Ø	52	72
Height	80	355

Product	Quantity for column Narrowstack 3D	Quantity for column Narrowstack 4D
Bottle 0.5L [Ø65mm, H235mm]	17	34
Slim Can 0.25L [Ø53mm, H135mm]	50	75
Can 0.33L [Ø66mm, H116mm]	51	68
Sleek Can 0.33L [Ø57.5mm, H146mm]	38	57

SandenVendo reserves the right to approve the vend of all products which are not perfectly cylindrical only after testing them.

SandenVendo is not responsible for uses and applications of the vending machine that are not covered in the explanations in this manual.


4.2 Access to internal parts

Attention!

The opening and activation of the vending machine with the door open must be entrusted exclusively to personnel authorized to perform these operations.
Do not leave the vending machine open unattended.

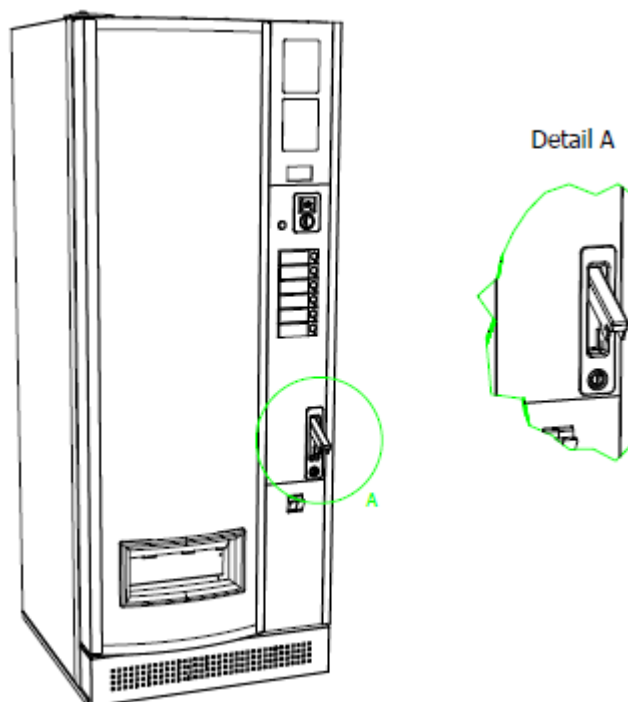
Access to the internal part of the machine (**Maintenance / Loading Zone**) is only possible through the appropriate key of the lock supplied with the vending machine.

Two silver colored keys are supplied with the vending machine to be used for the normal use of opening and closing, placed inside the coin return compartment.

 On request, a golden key is also provided which functions as a programming key as it is able to internally reset the lock itself.

Attention!

The golden key must not be used for daily use!
In fact, a regular and prolonged use of this key can damage the lock internally making it unusable.

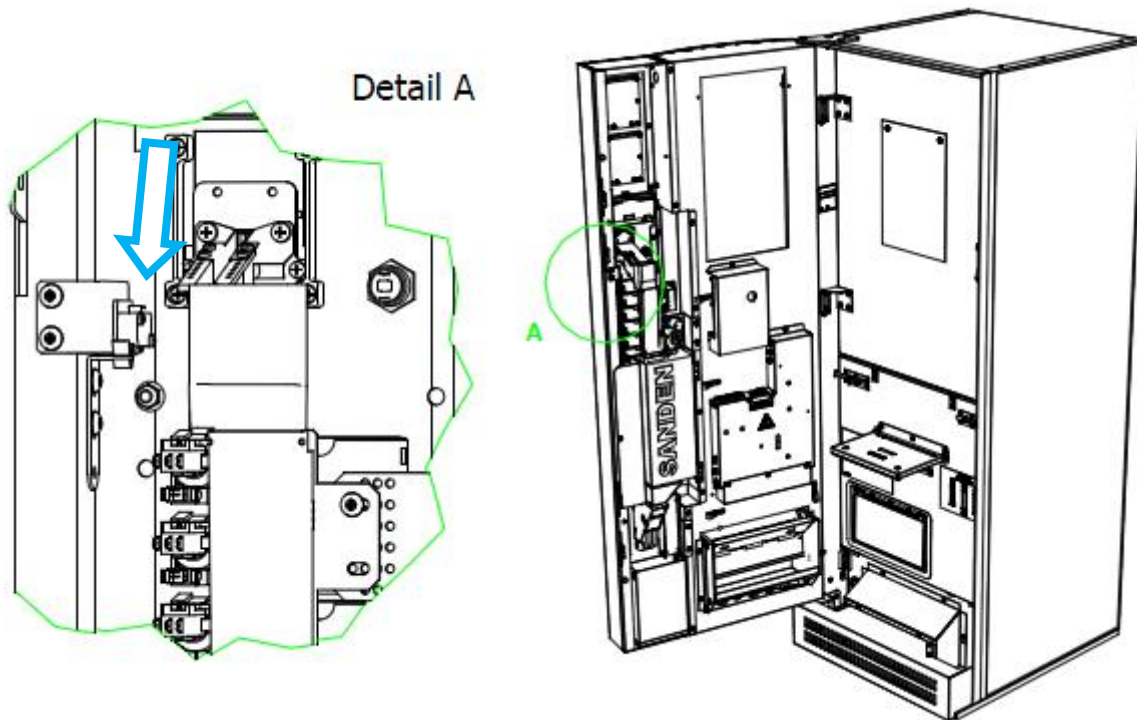


4.2.1 Safety devices

The vending machine is equipped with a safety switch that disconnects the voltage from the vending machine's electrical system whenever the door is opened.

For some operations, however, it is necessary to operate with the door open and the vending machine active.

To energize the system with the door open, simply close the handle to press the micro on the door.



i Each time the vending machine is switched on, a diagnostic cycle occurs to check the position of the moving parts.

⚠ Attention!

The door can only be closed after removing the blue plastic key from the switch.

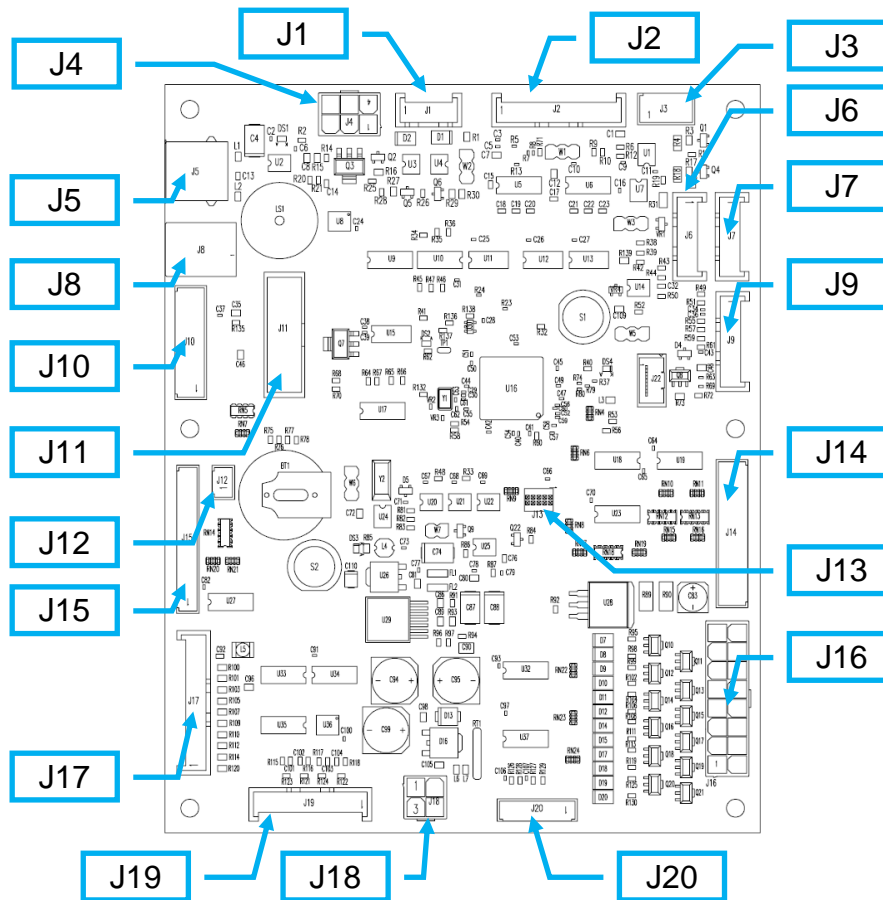


Attention!

Complete isolation from the mains is obtained only by disconnecting the plug. Therefore all the operations that require the vending machine with the door open must only be carried out by qualified personnel who are aware of the specific risks that this condition entails.

4.2.2 Board

4.2.2.1 SVE01 Board



J1. In/Out Coinage System Executive	J11. I2S/GP In / Out
J2. DEX / UCS	J12. Door Switch
J3. Communication I2C	J13. JTAG
J4. In/Out Coinage System MDB	J14. Input microswitch
J5. Communication USB	J15. Keyboard (matrix)
J6. Communication RS485	J16. Output motor 24 vdc
J7. Communication <--> RS485 to SVE03	J17. LED
J8. Communication USB	J18. Board SVE01 Alimentation
J9. Analog (ambient probe / evaporator probe)	J19. General purpose input
J10. Display	J20. Coin return motor

4.2.3 Operation NarrowStack Mechanism (N.S.)

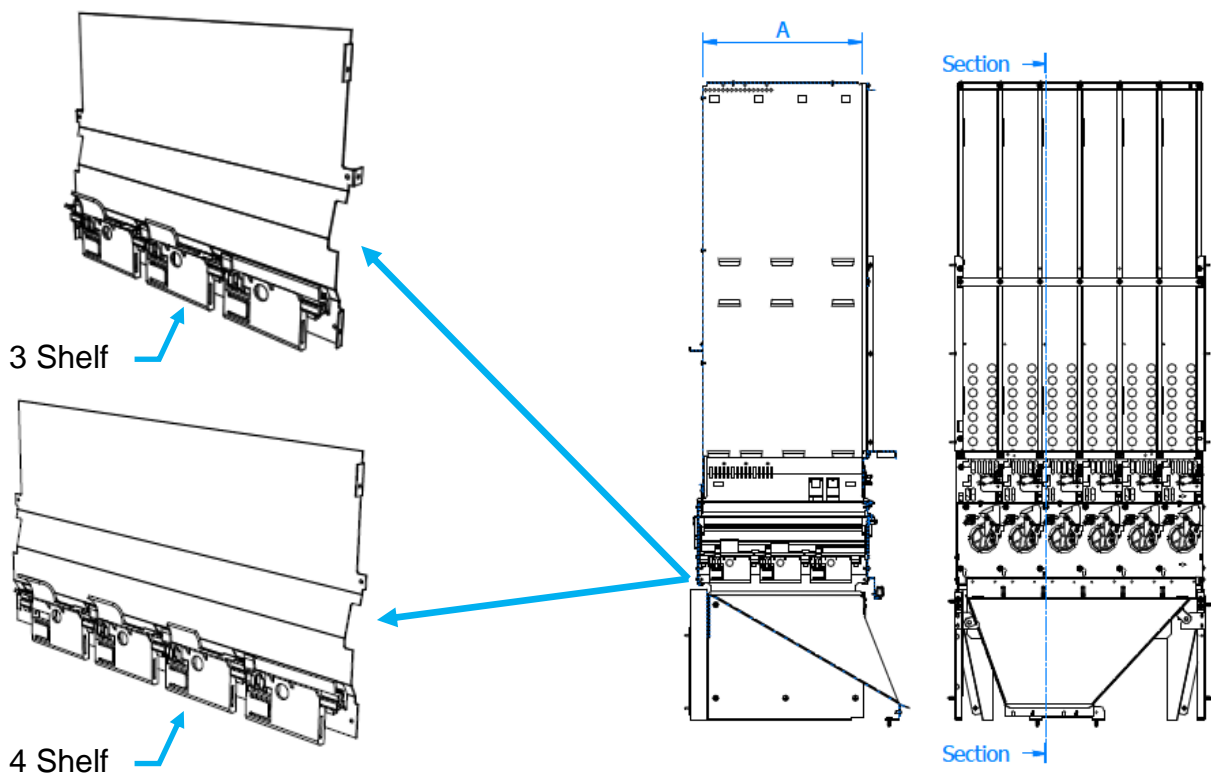
The Bottles and Cans models in this manual use the Narrowstack mechanism which has different configurations available based on the machine model and the type of product you want to sell.

There are two types of mechanism with different quantities of columns according to the model:

	Narrowstack 3D	Narrowstack 4D
SVE C36-XS	6 Column	-
SVE C47-S	-	7 Column
SVE C48-M	-	8 Column
SVE C4X-L	-	10 Column

The difference between the two models of mechanism is the depth and therefore the quantity of "shelf" available.

	Depth [A]	Shelf
NarrowStack 3D	360mm	3
NarrowStack 4D	500mm	4



⚠ Attention!

SandenVendo is not responsible for products not properly delivered from their vend system if they have not been previously tested by their technicians and at the end of the test delivered all adjustment to be effected on mechanism (set up sheet).

⚠ Attention!

We suggest you should not change the set up of a column if you don't have a set up sheet issued by SandenVendo.

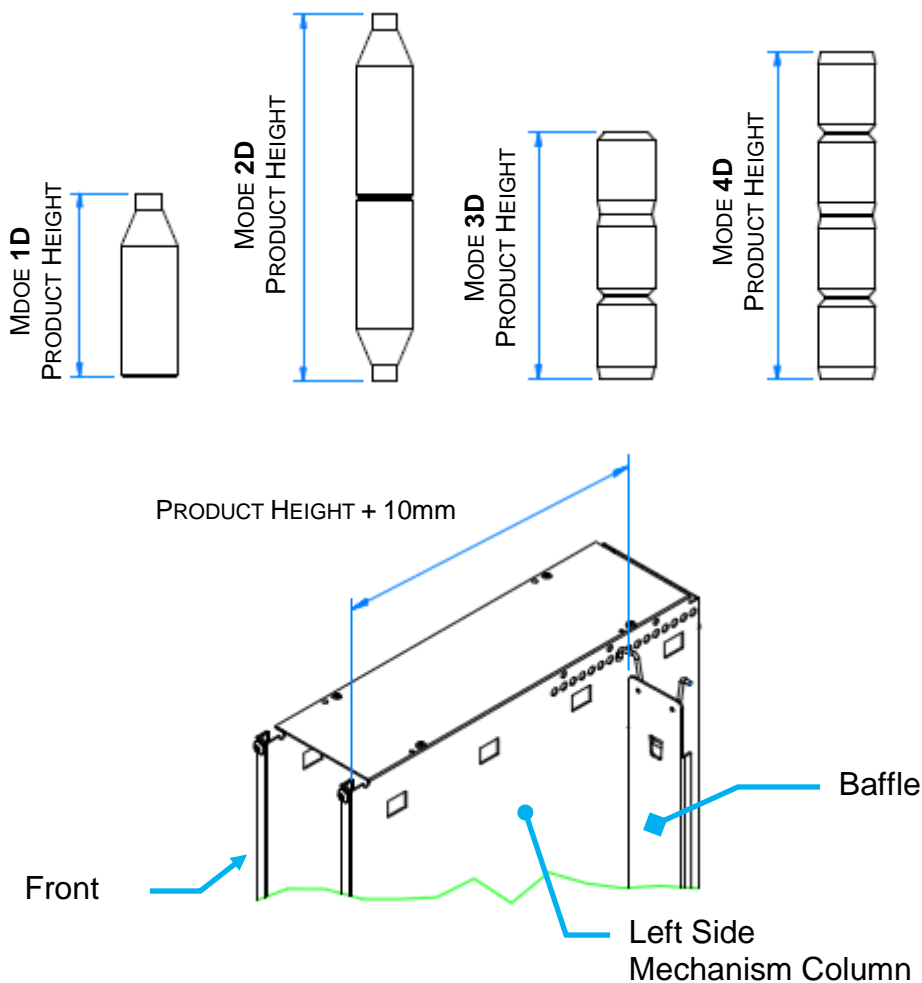
The adjustments to be made for the delivery of the products are listed below:

- a) adjustment of the rear spacer (Baffle);
- b) mechanical connection of the sales shelves;
- c) setting the sales cam of the motor;
- d) setting in the software “mode” of sale (1D, 2D, 3D, 4D);

4.2.3.1 Regulating the baffle (rear spacer)

Each column of the vending mechanism can be adjusted to deliver the product according to a delivery “method” that varies from *single* to *quadruple* based on the format of the product.

Note: The height of the product, or products, to be sold must be less than the depth of the mechanism.



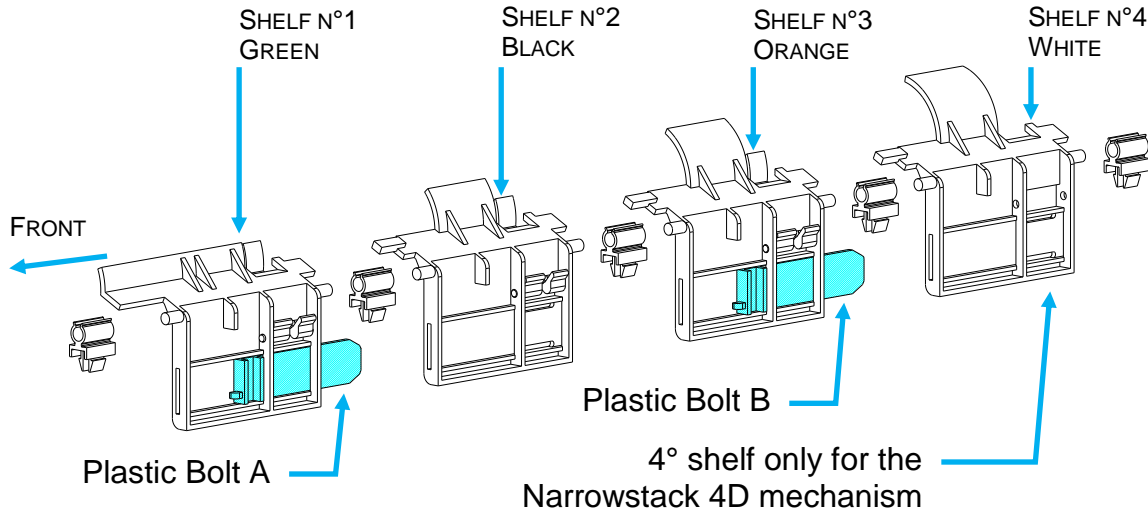
To adjust the baffle to the correct position, work as follows:

- Measure the height of the product you wish to deliver in that specific column;
- Position the baffle at a distance of “Product Height+10 mm” starting from the front gate.

4.2.3.2 Regulating the delivery shelves

To mechanically connect the delivery *shelf* of each mechanism you must press on the respective plastic bolts (A and B).

To connect 1&2 and 3&4 according to the product format to be delivered, you must move locks A and B into the seats of shelves 2 and 4.



4.2.3.3 Setting of column setup 1D/2D/3D/4D

Set mode 1D:

- Use the BLACK cam on the motor of the mechanism;
- Set 1 on the desired selection into the submenu “**Set Select Depth**”
- Narrowstack 3D: Connect the delivery shelf 1 & 2 together
- Narrowstack 4D: Connect the delivery shelf 1 & 2 and 3 & 4 together
- Fix the depth of the rear spacer (baffle)

Set mode 2D:

- Use the BLACK cam on the motor of the mechanism;
- Set 2 on the desired selection into the submenu “**Set Select Depth**”
- Narrowstack 3D: Connect the delivery shelf 1 & 2 together
- Narrowstack 4D: Connect the delivery shelf 1 & 2 and 3 & 4 together
- Fix the depth of the rear spacer (baffle)

Set mode 3D:

- Use the WHITE cam on the motor of the mechanism;
- Set 3 on the desired selection into the submenu “**Set Select Depth**”
- Narrowstack 3D: All 4 delivery shelves should be disconnected, independently operate one from the other
- Narrowstack 4D: Connect the delivery shelf 3 & 4 together
- Fix the depth of the rear spacer (baffle)

Set mode 4D:

- Use the BLACK cam on the motor of the mechanism;
- Set 4 on the desired selection into the submenu “**Set Select Depth**”
- Only Narrowstack 4D: All 4 delivery shelves should be disconnected, independently operate one from the other
- Fix the depth of the rear spacer (baffle)

4.2.4 Products Charging

⚠ Attention!

Never load the vending machine with products different to those recommended by the manufacturer.

⚠ Attention!

Never load the vending machine with product formats different from those recommended by the manufacturer.

⚠ Attention!

Follow the manufacturer's instructions regarding the expiry dates of the products and the maintenance temperature.

⚠ Attention!

To avoid problems, the operator in charge of filling the vending machine must not activate the safety switch.

For loading operations, follow the instructions below:

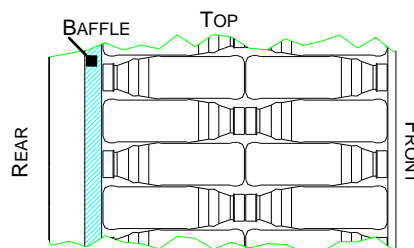
- Open the vending machine door;
- Open the internal door of the vending machine;
- Lower the product support to place the package with the products on top;
- Open the gates of the desired columns;
- Proceed to fill the columns with the products;
- Close the column gates;
- Close the product support;
- Close the internal door and the vending machine door.

⚠ Attention!

On the first load, make test sales, after which fill the column again.

⚠ Attention!

Load the bottles following the image below, or in particular cases following the indications of the setting received..



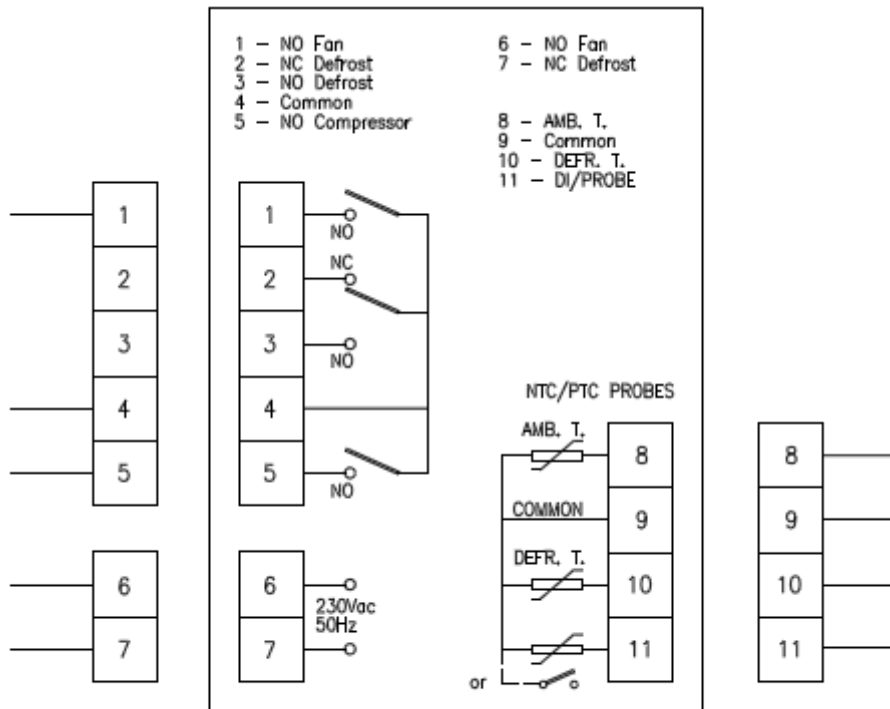
⚠ Attention!

For some product formats (for example 0.25 Lt. cans) the column requires spacers or other special kits: in this case contact SandenVendo Europe or the authorized service center for the correct setting. You can possibly send your product to the company: the tests necessary for the exact adjustment will be carried out.



Common products are normally tested at the factory. Ask for the setting number of the product you want to sell and refer to this number when ordering. We will make the vending machine according to your specifications.

4.2.5 Refrigerant System Operation



CONTROL UNIT COOLING

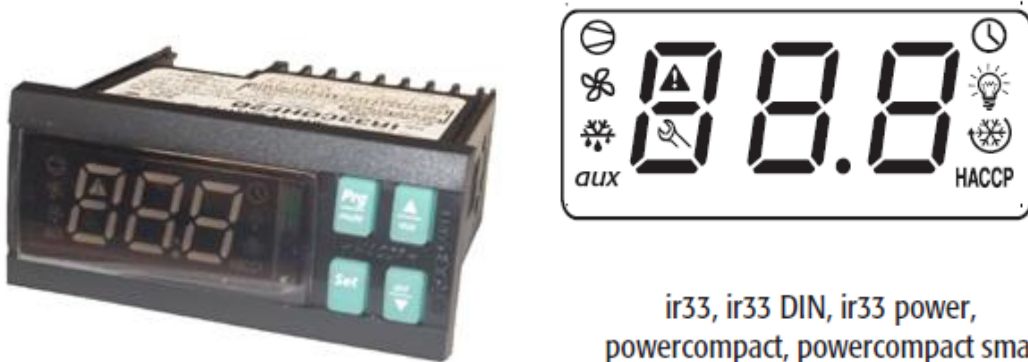
When switching on the control unit for the first times there will be a delay of three minutes in the compressor and evaporator fan starting .
 During normal working, the compressor will stop only after reaching the set point temperature and the evaporator fans will work always.
 When opening the door (if there is a door switch) both the compressor (if working) and fans will stop.
 When closing the door, the fans will start immediately, while the compressor will have a delay of three minutes from the last switching off, even if the door is closed before.

The cooling unit is controlled by various parameters inserted in the software of the control unit and unchangeable by the User, this avoids possible and unwanted modifications to the same parameters, that could cause a malfunctioning of the cooling unit. In any case, for any particular needs it is possible to contact the technical assistance service that will assist you in various problems.

4.2.5.1 Control Unit CAREL ir33 Description and Operation

The electronic control unit CAREL ir33 regulates and controls the refrigerant system and all its components: the compressor, the fans, the defrosting and is independent of the control of the board SVE01, which control the electronics of the distributor.





On the front of the control unit are: 3 digits, 7 LED indicators that show the operating conditions and 4 buttons.



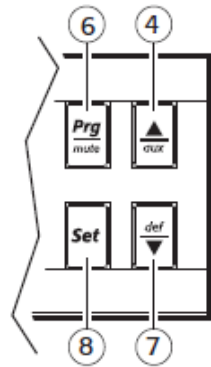
4.2.5.1.1 Display

ICON	FUNCTION	DESCRIPTION	Normal operation			Start up
			ON	OFF	BLINK	
	COMPRESSOR	ON when the compressor starts. Flashes when the activation of the compressor is delayed by safety times.	Compressor on	Compressor off	Awaiting activation	
	FAN	ON when the fan starts. Flashes when the activation of the fan is prevented due to external disabling or procedures in progress.	Fan on	Fan off	Awaiting activation	
	DEFROST	ON when the defrost is activated. Flashes when the activation of the defrost is prevented due to external disabling or procedures in progress.	Defrost in progress	Defrost not in progress	Awaiting activation	
	AUX	Flashes if the anti-sweat heater function is active, ON when the auxiliary output (1 and/or 2) selected as AUX (or LIGHT in firmware version 3.6) is activated.	AUX auxiliary output active (version 3.6 light auxiliary output active)	AUX auxiliary output not active	Anti-sweat heater function active	
	ALLARM	ON following pre-activation of the delayed external digital input alarm. Flashes in the event of alarms during normal operation (e.g. high/low temperature) or in the event of alarms from an immediate or delayed external digital input.	Delayed external alarm (before the time 'A7' elapses)	No alarm present	Alarms in norm. operation (e.g. High/low temperature) or immediate or delayed alarm from external digital input	

Instructions for the installer, maintenance technician and final user

ICON	FUNCTION	DESCRIPTION	Normal operation			Start up
			ON	OFF	BLINK	
	CLOCK	ON if at least one timed defrost has been set. At start-up, comes ON for a few seconds to indicate that the Real Time Clock is fitted.	If at least 1 timed defrost event has been set	No timed defrost event set	Alarm clock	ON if real-time clock present
	LIGHT	Flashes if the anti-sweat heater function is active, ON when the auxiliary output (1 and/or 2) selected as LIGHT is activated (in firmware version 3.6 it does not _ash in anti-sweat heater mode and comes on when the dead band output is active).	Light auxiliary output on(version 3.6 dead band auxiliary output active)	Light auxiliary output off	Anti-sweat heater function active(version 3.6 does not flash in anti-sweat heater mode)	
	SERVICE	Flashes in the event of malfunctions, for example E2PROM errors or probe faults.		No malfunction	Malfunction (e.g. E2PROM error or probe fault). Contact service	
HACCP	HACCP	ON if the HACCP function is enabled. Flashes when there are new HACCP alarms stored (HA and/or HF alarm shown on the display).	HACCP function enabled	HACCP function not enabled	HACCP alarm saved (HA and/or HF)	
	CONTINUOUS CYCLE	ON when the CONTINUOUS CYCLE function is activated. Flashes if the activation of the function is prevented due to external disabling or procedures in progress (E.g.: minimum compressor OFF time).	CONTINUOUS CYCLE operation activated	CONTINUOUS CYCLE function not activated	CONTINUOUS CYCLE operation requested	
	DISPLAY	Shows temperature in range -50 to +150°C. The temperature is displayed with resolution to the tenths between -19.9 and + 19.9 °C. The display of the tenths can be disabled by setting a parameter.				

4.2.5.1.2 Keyboard



ir33, ir33 power

Icon	Normal operation		Start up	Automatic address assignment request
	pressing the button alone	pressing together with other buttons		
 PRG/MUTE	If pressed for more than 5 seconds, accesses the menu for setting the type "F" parameters (frequent). Mutes the audible alarm (buzzer) and deactivates the alarm relay	PRG+SET: if pressed together for more than 5 seconds, accesses the menu for setting the type "C" parameters (configuration) or downloading the parameters. PRG+UP/AUX: if pressed for more than 5s, resets any alarms with manual reset	If pressed for more than 5 seconds at start-up, activates the procedure for restoring the default parameters	If pressed for more than 1 second, starts the automatic serial address assignment procedure
 UP/AUX	If pressed for more than 1s, activates/deactivates the auxiliary output.	UP/AUX+DOWN/DEF: if pressed together for more than 5 seconds, activates/deactivates continuous cycle operation. UP/AUX +SET: if pressed together for more than 5 seconds, starts the report printing procedure (if the controller is connected to the printer interface). UP/AUX +PRG/MUTE: if pressed together for more than 5 seconds, resets any active alarms with manual reset.		
 DOWN/DEF	If pressed for more than 5 seconds activates a manual defrost	DOWN/DEF +UP/AUX: if pressed together for more than 5 seconds activates/deactivates continuous cycle operation. DOWN/DEF +SET: if pressed together for more than 5 seconds, displays a sub-menu used to access the parameters relating to the HACCP alarms ('HA', 'HAN', 'HF', 'HFn').		
 SET	If pressed for more than 1 second, displays and/or sets the set point.	SET+PRG/MUTE: if pressed together for more than 5 seconds accesses the menu for setting the type "C" parameters (configuration) or downloading the parameters. SET+DOWN/DEF: if pressed together for more than 5 seconds, displays a sub-menu used to access the parameters relating to the HACCP alarms ('HA', 'HAN', 'HF', 'HFn'). SET+UP/AUX: if pressed together for more than 5 seconds, starts the report printing procedure (if the controller is connected to the printer interface).		

4.2.5.1.3 Displaying and setting the set point

Press **SET** for more than 1 second to display the set point;
 Increase or decrease the set point using the ▲ or ▼ buttons respectively, until reaching the desired value;
 Press **SET** again to confirm the new value.

4.2.5.1.4 Errors List

ERRORS	DESCRIPTION
ES	The compressor has a timing delay when starting, therefore the LED of the compressor on the display starts to flash.
E0	Still or flashing means an adjusting probe error: • probe not working, the probe signal is interrupted or in short circuit; • probe is not compatible with the instrument; The E0 alarm signal is stable if it is the only alarm present (the temperature value is no longer shown), it flashes if there are other alarms or if the second probe is shown
E1	Flashes evaporator probe error: • probe not working, the probe signal is interrupted or in short circuit; • probe is not compatible with the instrument;
EE	Visualized during functioning or activation Error in reading of the machine parameters. See memorised data errors.
EF	Visualized during functioning or activation Error in reading of the working parameters. See memorised data errors.
ED	The last defrosting finishes when exceeding the maximum time. The indication disappears if the next defrost is finished correctly.
DF	Defrosting in course: • it is not an alarm signal but an indication that the instrument is doing a defrosting.
AFR	Antifreeze Alarm • When AFR flashing on the display the glycol pump is broken or the glycol circuit is empty
DISPLAY BLINKS	The control unit display and all the LED's are flashing: • indicates that the door is open, or that the door switch is not working correctly • it is activated when the door remains open for more than one hours

5 MAINTENANCE

5.1 Warnings

According to current health regulations, the operator of a vending machine is responsible for hygiene and cleanliness of the same.

The following section is a basic guide for the general maintenance and cleaning of the vending machine. Maintenance on the cooling unit may only be performed by trained specialist staff. While working, always wear protective goggles and gloves. Maintenance personnel must be made aware of the potential danger in touching hot metal parts. Even with the power off all the components of the cooling machine may still be very hot, especially touching the evaporator heater may cause burns.

Before carrying out any cleaning operation on the vending machine, pay careful attention to the following directions:

- Perform electrical insulation of the vending machine before cleaning or when an electrical component is connected / disconnected.
- Do not use blades or other sharp tools to scrape parts or components in the vending machine.
- Do not clean the vending machine in direct sunlight or in high temperatures.
- Cut off the power supply before cleaning electrical parts and/or parts protected by covers.
- The power plug must be positioned so that the operator can see and control it from any position.
- Do not use cleaning products other than those recommended.
- All types of cleaning that require the use of liquids should only be carried out after disconnecting the machine from the mains power supply.
- Never use pressured water cleaner or water jets.
- Never clean with blades or pointed objects.

Attention!

SandenVendo declines all responsibility for damage caused by failure to observe the precautions contained in the manual and the current regulations.

5.2 Recommended cleaning products

We recommend cleaning the machine using only the following types of products and materials:

- neutral detergent
- compressed air (2 bar max.)

Attention!

In order to avoid any oxidization, corrosion, brattling, peeling of paint and other damages to the machine **NEVER USE** under any circumstance the following products::

- abrasive detergents
- very alkaline or acidic detergents
- benzene
- petrol
- acetone

5.3 Cleaning safety devices

For each cleaning operation, it is advisable to wear protective gloves and/or clothing.

Attention!

Follow all cleaning product instructions and read the relevant COSHH data.

5.4 Preventive maintenance

To guarantee the machine operates correctly we recommend that you periodically carry out the following maintenance operations:

- Check the vending machine and the surrounding area, check for signs of rust on the outer cabinet and obstructions in the air vents.
- Open the door and check there is no accumulation of water, signs of rust, and humidity around the corners.
- Check that the evaporator outlet is not blocked (condensed water in the evaporator must drain out towards the condenser pan).
- Periodically check the door seals. Should they be damaged, replace the seals immediately.
- Periodically check that the condenser is clean.
- Check that the evaporator fan and the cooling system work normally (the fan blades must be free from any foreign matter).
- Check that the compressor and the condenser fan work normally (the fan blades must be free from any foreign matter).
- Check that all the selections are correctly delivered.
- Periodically check the service cord. If the cable or connector is damaged or worn, it must be replaced with a service cord of the same type as the original delivered together with the vending machine.

5.5 Cleaning operations

The vending machine should be generally cleaned in order to keep it in perfect working order.

In general, we advise following maintenance plan:

Attention!

Disconnect the vending machine from power supply before cleaning.

5.5.1 Daily Cleaning

- » Clean the decal using suitable detergents.
- » Clean the control panel using a damp cloth.
- » Clean the delivery area with a clean cloth.
- » When loading new products, check the expiry dates and load new products with the "FIFO" concept (first in - first out, that is: first inserted - first extract).
- » Remove dust and / or dirt from the sensors on the door or inside the nozzle using compressed air and / or a clean cloth.

5.5.2 Weekly Cleaning

In addition to the daily cleaning operations:

- » Clean the ventilation grate using compressed air and a damp cloth.
- » Check for insects and remove them if necessary from inside the vending machine.
- » Remove the dust generated in the area of the refrigerant system, especially on the base.
- » Check the door seals, clean using lukewarm water, non-abrasive detergents and a soft cloth. Do not lubricate the seals and check for deformation or damage. If necessary replace..
- » Check and clean the sensors of the installed payment systems. Refer to the manufacturer's instructions for each device.

5.5.3 Monthly Cleaning

In addition to the daily and weekly cleaning operations:

- » Check product detection sensors on the mechanism.
- » Clean the cabinet inside and outside using a suitable detergent or soap. Externally apply any good car wax. Repair any paint scratches to prevent corrosion..
- » Check the drain hose and clean. The water from the evaporator must flow freely in the tray next to the compressor..
- » Clean the display screen and the inside of the display panel.
- » Check that all the compartments and pipes of the refrigerant system are clean and that there are no obstructions for the passage of air. Condenser and evaporator must be kept clean for optimal operation. Clean the condenser every three months with a vacuum cleaner and a brush, make sure that all the fins and hoses are free and clean.

5.5.4 Yearly Cleaning

In addition to the daily, weekly and monthly cleaning operations:

- » If necessary recharge the refrigerant system gas.
- » Check the integrity of the vending machine and the compliance with the standards of the relative systems by qualified personnel.

5.6 Assembly / Disassembly for Maintenance



Attention!

All the operations indicated in the following paragraphs (5.6.1, 5.6.2, etc.) must be carried out by qualified personnel.



Attention!

Contact technical assistance to request further support for any difficult operations.

5.6.1 LED Replacing

To replace the LED tubes, proceed as follows:

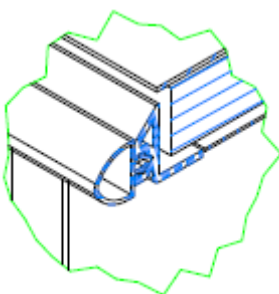
- » Open the vending machine door;
- » Turn off the vending machine from the main switch;
- » Disconnect the wiring of the LED tubes on the inner part of the door around the delivery area;
- » Through the hole on the inner part of the door: replace the desired LED tubes;
- » Connect the new LED tube..

Once the replacement operations have been completed, proceed as follows:

- » Turn on the vending machine from the main switch.
- » Close the door.

NOTE: with the door open, the LEDs turn off automatically.

5.6.2 Door Gasket Replacement



- » Open the vending machine door;
- » Turn off the vending machine from the main switch;
- » Open the upper internal door and / or remove the lower internal door;
- » Pull the damaged gasket firmly until it is removed from the seat in the side profiles;
- » Insert the new gasket in the seat on the door profiles;
- » Fit the gasket well even in the corners, where it will be more difficult.



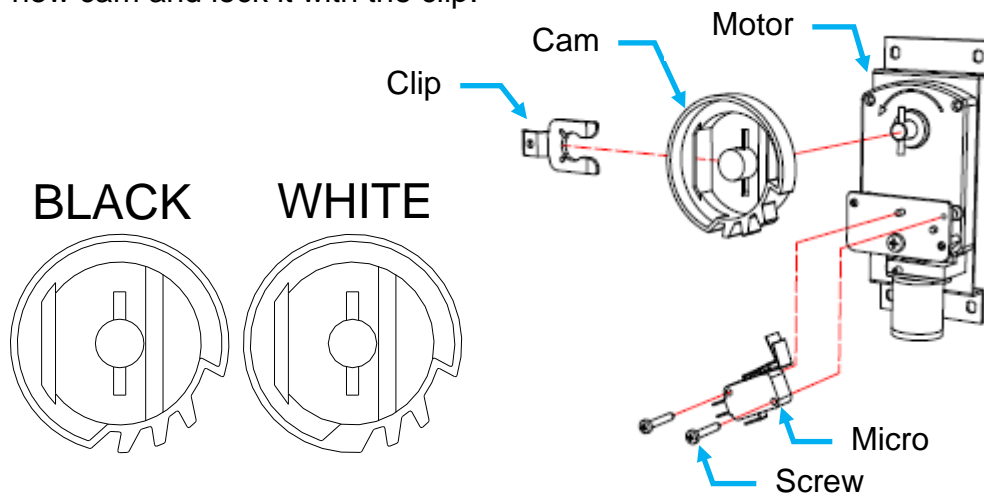
The gasket is fixed interlocking in the profiles on the door.

5.6.3 Replacement Cam / Micro Motor Mechanism

- » Open the vending machine door;
- » Turn off the vending machine from the main switch;
- » Open the upper internal door and remove the lower internal door;

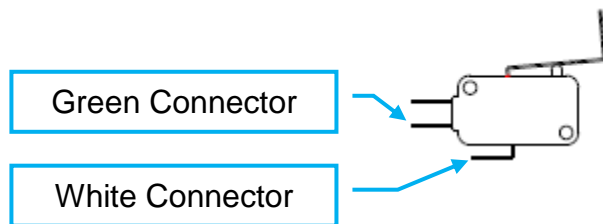
» To replace the cam, it is necessary to remove the clip that locks it and then pull the cam outwards.

» Insert the new cam and lock it with the clip.



» To replace the micro, remove the two screws that secure it.

« Follow the instructions to reconnect the cables correctly.



» Perform tests with new components;

» Mount the lower inner door, close the upper inner doors.

6 TROUBLESHOOTING

The following table lists the problems that may occur on our vending machines. We have listed the possible causes together with the recommended solutions to eliminate the problems.

⚠ Attention!

In case of failure and/or poor cooperation only contact the skilled personnel at our service centers.

⚠ Attention!

Check the programming manual to know the meaning of the errors shown on the display.

6.1 Door Errors

Problem	Possible causes	Recommended solutions
It is difficult to close the door or it does not close	vending machine crooked	Check that the vending machine is level, adjust the position by unscrewing / screwing the feet.
Condensation	Worn gasket	Check door gasket, and replace if necessary.
LEDs do not light up	No power supply	Controllare se la macchina è alimentata nel modo adeguato.
	Harness disconnected	Check connection of LED connectors.
	Defective LEDs	Replace.
Coin Return Motor not working	Faulty harness	Check harness connections
	Defective Motor	Replace
	Wrong motor height	Position the coin return motor at the correct height
SVE01 board without power supply	Transformer box	Check harness connections Check fuses Check socket
Does not enter the programming mode	Wiring connections of the SVE01 board	Connect harness properly. Replace card.
Defective display	It won't turn on	Check harness connection. Replace Display.
The vending machine is out of order and the display does not turn on	The fuses that protect the vending machine from short circuit are blown	Check the parameters of the electric current used. Look for the cause of the short circuit, check the power supply harness and the components of the transformer box. Replace the fuses on the transformer box.

The lock does not open	Wrong key	Make sure to use the key with the same encryption as the lock
	Lock stuck	With the door closed: It is necessary to drill the lock to be able to remove it. With the door open: Replace.
	Distributor not on the bubble	Straighten the distributor.
	Broken key inside the lock	Replace
Door closed but the machine does not go into sales mode.	Micro is not activated	Check if the micro on the right side of the cabinet is pressed correctly.
	Micro defective	Check if the micro is activated using the special key, replace if necessary.
	Faulty harness	Check the harness connections and their integrity.
Coin Return blocked	Dirty or stuck	Remove objects that block movement and / or clean.
Coin return button problems	Defective button	Check harness connections / integrity. Replace button.
	Coin return motor not working	Check harness connections / integrity. Replace motor.
Date and time are not kept in memory after the vending machine is turned off and on	Battery on the SVE01 board exhausted	Replace battery on the board with an identical one

6.2 Mechanism Errors

Problem	Possible causes	Recommended solutions
The selection motor does not work	The motor was overloaded and went out of service.	Check the operation of the motor with the test menu.
	The motor has not been assigned to a selection.	Assign the column to the desired selection as indicated in the programming manual.
	Connection problems	Check the motor connections.
	The presence of the motor is not detected	Check the harness connection. Check the motor.
	Motor not working	Replace motor
The sales motor runs until two or three products are sold, after which the column is sold out	Motor micro-switch smeared	Clean or replace it.
Two or more motor start operating at the same time	Harness connection problems	Check integrity of harness.
	Defective board	Replace
The column marks sold-out even when it is full.	The products are beyond the sold-out sensor	Check that the column arrangement is correct. Check if the micro sold-out works.

6.3 Payment Device Errors

Problem	Possible causes	Recommended solutions
Coinmech does not accept coins	No energy comes to the vending machine	Connect the plug, check the power outlet.
	Energy does not reach the coinmech	Check that the coinmech harness is not defective and that the fuse is not blown (consult the coinmech manual)
	The coinmech is out of order or the coin return lever is not pressed properly	Check the position of the coin return mechanism.
	Dirty coin channel	Clean the coinmech with an appropriate detergent. Dry very well.
	Defective coinmech	Replace coinmech
	Coin locked in the mechanism of the coinmech	Remove jam and test.
	Coin return activated	Adjust coin return lever position.
	Vending machine in "Service Mode"	Vending machine door open or defective switches.
	The coin acceptor only accepts an amount of coins higher than the sale price	Check payment parameters as indicated in the programming manual.
	The coin acceptor only accepts one coin	Check the payment parameters. Check power supply malfunctions.
	The coin validator does not reset or does not receive signals from the acceptor.	Check integrity of harness, coinmech connections and, if necessary, the coinmech manual.
Price set to 0 "zero"	Set the desired price	
Coinmech does not return coins	Energy does not reach the coinmech	Check that the coinmech harness is not defective and that the fuse is not blown (consult the coinmech manual)
	There are no coins in the tubes	Fill the tubes with some coins.
	Pipes programmed the wrong way	Reprogram the tubes as indicated in the coinmech manual
	Defective coinmech	Replace coinmech
Banknote reader does not work	Prices / coin tubes settings	Check coin tubes
Banknote Reader does not accept banknotes		Check the banknote device manual or replace it.
	Insufficient coins in the tubes of the coinmech	Check payment settings, fill the coinmech tubes.

Banknote reader takes the banknote but does not release the credit.	Card, Harness and Banknote Reader	Check the banknote reader manual or replace. Check the harness. Replace the card.
No rest is returned	There are no coins in the coinmech	Load coins into the tubes of the coinmech.
Return wrong rest	Sale price set different from labels	Set correct price or replace labels
	Coinmech defective	Replace

6.4 Refrigerant System Errors

Problem	Possible causes	Recommended solutions
The cooling system does not work.	No power to the vending machine.	Check the power source. Check the power cable connections and fuses.
	Door switch is not activated.	Check door closing and function of the door switch
	Temperature controller is defective or has a connection problem	Check the temperature controller and the connections
	Temperature controller is defective	Replace the temperature Controller
The compressor works, but the temperature is not ideal	The condenser is dirty.	Check if the condenser fins are dirty or obstructed. Clean using a small hard bristle hand brush.
	Machine is installed too close to the wall	Make sure that there is 10 cm space between the rear grid and the Wall
	The condenser fan does not work.	Check if the fan is blocked. Check the circuit. Replace the motor.
	The evaporator fan does not work.	Check the circuit. Replace the motor and check that the fan is not blocked. Check the fan relay, check the connection to the temperature controller
	The temperature setting is not correct.	Set the desired temperature (ref. Programming Manual).
	Not enough refrigerant in system.	Replace cooling unit

Evaporator covered in ice.	Evaporator fan does not work.	Check the circuit. Replace the motor and check that the fan is not blocked. Check the fan relay, check the connection to the temperature controller
	The cooling compartment is badly sealed.	Change the sealing and/or adjust the internal door closure. Check that the product delivery door is closing correctly after product delivery .
The compressor runs, is warm but no cold is	Check the end of the capillary tube	If no ice is produced after 5 minutes function, there is a refrigerant leakage. Replace the cooling unit.
When the vending machine is turned on, the system does not start immediately	Operation set to not cause damage to the system.	Wait about three minutes.
The compressor does not start	there is no electricity	Distributor is not connected to the power supply
	Fuses of transformer box blown	Replace
	Service cord Damaged	Replace
	Power supply not compliant with the indications on the vending machine plate	
	Faulty relay	Check relay
Overload compressor	Wrong voltage	Check if the power supply reflects the data indicated on the vending machine plate
	Faulty relay, does not open after startup	Check the relay
	Short circuit in other components	Insulate and eliminate expensive electrical components until you find the short.
	Hot compressor	Dirty condenser. Problems with the motor or condenser fan. Insufficient ventilation.

System vibrates or is noisy	Various components touch each other	Check fans and motors. Clean any dirt. Loose sheets or wiring, loose screws.
	Aged or worn elbow	
	Low voltage	
	Damaged valves	
Short work cycles	Temperature sensor defective or installed in the wrong place.	Check wiring and sensor integrity. Check sensor position.
	Defective control unit	Replace
	Temperature set too hot	Check paragraph on how to set the control unit.
System remains in operation for a long time or continuously	Defective temperature sensor or mounted in the wrong place	Check integrity of harness and sensor. Check sensor position.
	Defective relay	
	Not enough air circulation	Check the ventilation grid
	Door gasket does not seal properly	Check gasket and replace if necessary.
	Charged hot products. After the filling of the vending machine, the refrigeration system takes longer to lower the temperature of the products.	
	Short circuit of the refrigerant system or its components	
	Defective control unit	Replace
	Ambient temperature and relative humidity higher than those indicated for standard operations.	
	Lack of gas in the cooling system due to some leaks.	
	The fans do not allow the air to circulate inside the distributor	Check the ventilation channels of the distributor.
Temperature too cold	Defective temperature sensor	Check integrity of harness and sensor.
	Temperature set too cold	Check paragraph on how to set the control unit.
	Defective relay	
	Defective control unit	Replace

Temperature too high	Defective temperature sensor	Check integrity of harness and sensor.
	Temperature set too hot	Check paragraph on how to set the control unit.
	Defective relay	
	Defective control unit	Replace
	Faulty evaporator motors causing pipes to freeze	
	Insufficient ventilation of the condenser, for various reasons (dirt, fan jamming, faulty motors)	Check the ventilation channels and remove any obstructions.
	The vending machine is positioned too close to the wall	Make sure there is at least 10cm of space between the rear grill and the wall.
	Defective compressor valves	Replace



Only technicians from SandenVendo Europe or authorized personnel may carry out operations that require the machine's lower protection to be opened, because of possible risk of electric shocks and moving mechanical parts.

7 OUT OF ORDER OPERATION

7.1 Disposal

Information about protecting the environment



Dispose of the packing in conformity with the recycling procedures.

In this way, you contribute towards reducing the need for virgin wood, using material that would otherwise accumulate at landfills.



Recycling the vending machine. Do not dispose the vending machine with other domestic waste. This vending machine contains electrical and electronic material, which, as indicated by **Directive ROHS 2011/65/UE**, and **Directive WEEE 2012/19/UE**, if treated correctly, can be salvaged and recycled at the end of its working life. Recycling this product contributes towards reducing the need for new materials and reducing the accumulation of waste.



ATTENTION: the manufacturer declines all responsibility for damage to the environment or for different systems that are used for the disposal of the materials that compose it.



To obtain updated information on treatment and recycling WEEE centers, please visit our website:


www.sandenvendo.com

7.2 Person in charge of disposal

Directive **WEEE** 2012/19/UE enforces the obligation **NOT** to dispose **WEEE** (Waste Electrical and Electronic Equipment) as household waste and to select this waste for separate collection.

By law, the person in charge of disposal must, upon receiving an appliance showing this



symbol , before disposing of it select the **WEEE** waste and make it available for collection.

7.3 Sanctions

The sanctions in case of the illegal DISPOSAL of **WEEE** waste are indicated in the national decrees related to the Directive **ROHS** 2011/65/UE, Directive **WEEE** 2012/19/UE.

