



## User and maintenance manual

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G-Snack Design Line **SVE SDX - SVE SD8 - SVE SD6**

**SVE SC8 - SVE SC6**

**SVE SMX - SVE SM8 - SVE SM6**

G-Snack Design Line Outdoor **SVE SDXOD - SVE SD8OD - SVE SC8OD**

**SVE SD6OD - SVE SC6OD**

**SVE SMXOD - SVE SM8OD - SVE SM6OD**

*— Design Line —*



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**SAV: 08 92 00 12 49** (1) numéro payant 0,34 cts la minute

|  |           |
|--|-----------|
| <b>1 GENERAL WARNINGS</b>  | <b>4</b>  |
| 1.1 Purpose of this manual                                       | 4         |
| 1.2 To whom this manual is addressed                             | 4         |
| 1.3 Responsibility   | 6         |
| 1.4 Manufacturer   | 7         |
| 1.5 Service centers  | 7         |
| 1.6 Warranty   | 7         |
| 1.7 General safety warnings                                      | 8         |
| 1.8 Symbols  | 11        |
| <b>2 MACHINE FEATURES</b>  | <b>12</b> |
| 2.1 Differences between models                                   | 12        |
| 2.2 Technical features   | 14        |
| 2.3 Description of components                                    | 16        |
| 2.4 OutDoor Version  | 17        |
| 2.4.1 Outdoor Components   | 18        |
| 2.5 Referral programming manual                                  | 19        |
| <b>3 INSTALLATION</b>  | <b>20</b> |
| 3.1 Transport and positioning                                    | 20        |
| 3.2 Installation environment features                            | 21        |
| 3.3 Removing the wooden bases                                    | 22        |
| 3.3.1 Removing the wooden bases on models SC8-SC6-SM8-SM6        | 22        |
| 3.4 Leveling   | 23        |
| 3.5 Stability  | 23        |
| 3.6 Connection to power mains                                    | 24        |
| 3.7 Installing the coin mechanism                                | 25        |
| 3.8 How to split the vending machine model SC8 - SC6 - SM8 - SM6 | 26        |
| <b>4 ACCESS TO INTERNAL PARTS</b>                                | <b>30</b> |
| <b>5 USING THE VENDING MACHINE</b>                               | <b>31</b> |
| 5.1 Warnings   | 31        |
| 5.2 Proper use   | 31        |
| 5.3 Loading products   | 32        |
| 5.4 Configuration of the vending machine for 2 temperatures      | 33        |
| 5.5 Product vending adjustments                                  | 35        |
| 5.6 Final check  | 38        |
| 5.7 Start-up   | 39        |
| 5.8 Elevator (optional)  | 40        |
| 5.9 Motorized Locking for Delivery Eyelet (optional)             | 42        |
| <b>6 DESCRIPTION AND FUNCTION OF CONTROL UNIT</b>                | <b>43</b> |
| 6.1 Control Unit EASY CAREL                                      | 43        |
| 6.1.1 Display  | 43        |
| 6.1.2 Keyboard   | 44        |
| 6.1.3 Set the temperature  | 44        |
| 6.1.4 Quick defrost  | 44        |
| 6.1.5 Description of the main signals and alarms                 | 45        |
| 6.1.6 Function   | 45        |
| 6.2 Control Unit CAREL ir33                                      | 46        |
| 6.2.1 Display  | 46        |
| 6.2.2 Keyboard   | 48        |
| 6.2.3 Displaying and setting the set point                       | 49        |
| <b>7 MAINTENANCE</b>   | <b>49</b> |
| 7.1 Access to the maintenance area                               | 49        |
| 7.2 Preventive maintenance                                       | 50        |
| 7.3 Replacing LED-tube   | 51        |
| 7.4 Cleaning the vending machine                                 | 52        |
| 7.5 Warnings   | 52        |
| 7.6 General cleaning operations                                  | 53        |

|   |           |
|---|-----------|
| 7.7 Recommended cleaning products.....    | 54        |
| 7.8 Cleaning safety devices.....          | 54        |
| <b>8 INFORMATION – DANGER SIGNS .....</b> | <b>55</b> |
| <b>9 TROUBLESHOOTING.....</b>             | <b>57</b> |
| <b>10 STORAGE AND DISPOSAL.....</b>       | <b>59</b> |
| 10.1 Storage.....                         | 59        |
| 10.2 Disposal.....                        | 59        |
| 10.3 Person in charge of disposal.....    | 60        |
| 10.4 Sanctions.....                       | 60        |

 **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 GENERAL WARNINGS

## 1.1 Purpose of this manual

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

### **KEEP INSIDE THE MACHINE**

## 1.2 To whom this manual is addressed

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 (**Installation/maintenance technician**). It is compulsory that all personnel in charge of these operations are familiar with the instructions and abide by the procedures contained in this manual.

## **Technicians allowed to operate this vending machine:**

- **Operator** (person who only loads the machine with products to be sold)
  - This operator can only fill the vending machine by the products to be sold.
  - When filling the machine, this operator is not allowed to remove the safe-protection below as it is indicated on the related safety icon-label on the protection.
  
- **Maintenance Engineer / Skilled technician**
  - In order to perform the operations required to dismantle the safety-protection below, it is necessary to contact SandenVendo technicians or authorized (by SandenVendo) skilled and trained technicians due to the potential electrical and mechanical hazards.

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.

## 1.3 Responsibility

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

**“SandenVendo Europe Spa”** declines all responsibility for any damages caused to persons and/or property as the result of:

- Incorrect installation
- Use of unauthorized spare parts
- Execution of changes unforeseen/unauthorized by the manufacturer
- Improper use of the machine
- Connection to inadequate supply systems and non in conformity with the regulations in force



## 1.4 Manufacturer

“**SandenVendo Europe Spa.**” has over 50 years experience in constructing beverage vending machines, and it is precisely the technological know-how it has developed over many years of research working closely with the production and international marketing, which is the best guarantee that **SandenVendo Europe Spa.**” can offer.

## 1.5 Service centers

“**SandenVendo Europe Spa.**” is represented by a valid and prepared sales network in both Italy and Europe (see inner cover page).

## 1.6 Warranty

The warranty on the Vending Machine components, starting from the date shown on the delivery note, is for 24 months for the cooling system.

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

**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

## **1.7 General safety warnings**

- Carefully read the manual before starting or loading the vending machine
- Protect the vending machine against weather conditions
- Only maintenance technicians should remove the protective covers
- Always read the programming manual before operating the electronic board settings
- Never position the vending machine in direct sunlight
- Never sell the products with the door open
- Refer to the routine maintenance chapter to clean the vending machine
- Disconnect the power supply cable before investigating or unblocking a blocked product
- Use a special protection system/Residual current device or similar.

- Install the appliance so that the electrical plug can be easily accessed afterwards
- 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.
- This machine is not suitable for installation in areas where water jets are used
- This machine is not suitable for outside installation
- The OutDoor IP34 models are suitable for outside installation
- To prevent hazards due to machine instability, secure the machine according to the instructions
- In case of a failure and/or poor operation, only seek help of the qualified personnel of our service centers.
- Use only spare parts authorized by the manufacturer

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/EC** (EC markings).














“**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.

## 1.8 Symbols

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.

Here are the symbols used in the manual and on the vending machine:

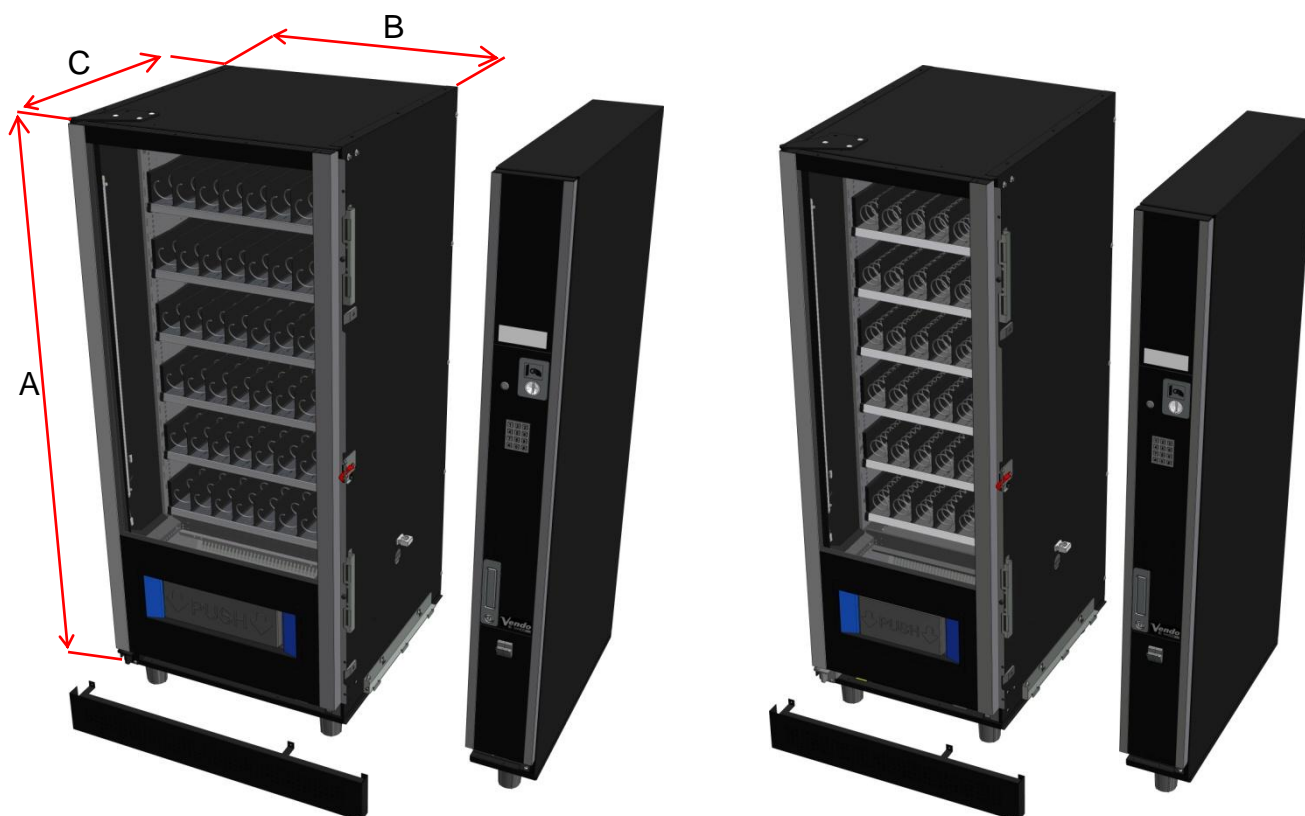
| SYMBOL  | MEANING                       | COMMENT  |
|---|-------------------------------|--|
|    | <b>Compulsory</b>             | Compulsory for all personnel involved  |
|    | <b>Compulsory</b>             | Compulsory for all personnel involved to wear protective gloves during maintenance of the vending machine  |
|    | <b>Compulsory</b>             | Compulsory for all personnel involved to protective clothing during maintenance.   |
|    | <b>Additional information</b> | Additional information is given.   |
|    | <b>Manual</b>                 | Before carrying out this operation, refer to the Instruction Manual.   |
|   | <b>Maintenance operations</b> | In case of special operations and/or anomalies, a particular mechanical adjustment and/or electrical setting may be required.  |
|  | <b>Warning</b>                | Indicates a warning, failure to comply may involve damage to the vending machine.  |
|  | <b>Danger</b>                 | MOVING PARTS, Extreme care must be taken whilst operating the vend mechanism.  |
|  | <b>Danger</b>                 | Risk of electric shock, disconnect power before handling electric cables.  |
|  | <b>Danger</b>                 | Indicates information regarding personnel safety and machine integrity.  |
|  | <b>Danger / Prohibition</b>   | Indicates the danger of electric shocks and mechanical risks.<br>Never remove this safety guard.<br>Only SandenVendo Europe technicians or qualified personnel can open this safety guard. |
|  | <b>Recycling</b>              | Recycling this product goes toward reducing the need of new materials and the accumulation of waste.   |
|  | <b>Disposal</b>               | Dispose in conformity with recycling procedures.   |

## 2 MACHINE FEATURES

### 2.1 Differences between models

The vending machine line **G-Snack Design Line** is composed by many models that have the following differences:

| Models     | Number of selection for each shelf | Cabinet base divisible | Drawer Panel in Lexan | Drawer Panel in Metal | Silver Profiles | Black Profiles | Delivery Eyelet Blue Profiles | Delivery Eyelet Black Profiles |
|------------|------------------------------------|------------------------|-----------------------|-----------------------|-----------------|----------------|-------------------------------|--------------------------------|
| <b>SDX</b> | 10                                 |                        | X                     | X                     | X               |                | X                             |                                |
| <b>SD8</b> | 8                                  |                        | X                     | X                     | X               |                | X                             |                                |
| <b>SD6</b> | 6                                  |                        | X                     | X                     | X               |                | X                             |                                |
| <b>SC8</b> | 8                                  | X                      | X                     | X                     | X               |                | X                             |                                |
| <b>SC6</b> | 6                                  | X                      | X                     | X                     | X               |                | X                             |                                |
| <b>SMX</b> | 10                                 |                        |                       | X                     |                 | X              |                               | X                              |
| <b>SM8</b> | 8                                  | X                      |                       | X                     |                 | X              |                               | X                              |
| <b>SM6</b> | 6                                  | X                      |                       | X                     |                 | X              |                               | X                              |



Model SC8

Model SC6

| Dimensions | SC8 - SM8 | SC6 - SM6 |
|------------|-----------|-----------|
| Height (A) | 1830 mm   | 1830 mm   |
| Width (B)  | 780 mm    | 630 mm    |
| Depth (C)  | 845 mm    | 845 mm    |





**SVE SDX**



**SVE SD8**



**SVE SC8**



**SVE SD6**



**SVE SC6**



**SVE SDXOD**



**SVE SD8OD**



**SVE SC8OD**



**SVE SD6OD**



**SVE SC6OD**



**SVE SMX**



**SVE SM8**



**SVE SM6**



**SVE SMXOD**



**SVE SM8OD**



**SVE SM6OD**

## 2.2 Technical features

| G-Snack Design Line Master   |                                   |                 |                 |
|------------------------------|-----------------------------------|-----------------|-----------------|
| Dimensions                   | SDX - SMX                         | SD8 - SC8 - SM8 | SD6 - SC6 - SM6 |
| Height (A)                   | 1830 mm                           | 1830 mm         | 1830 mm         |
| Width (B)                    | 1125 mm                           | 980 mm          | 830 mm          |
| Depth (C)                    | 845 mm                            | 845 mm          | 845 mm          |
| Weight                       | 340 Kg                            | 310 Kg          | 275 Kg          |
| Power supply                 |                                   |                 |                 |
| Nominal voltage              | 230Vac                            | 230Vac          | 230Vac          |
| Nominal frequency            | 50 Hz                             | 50 Hz           | 50 Hz           |
| Max. power consumption       | 600 W                             | 600 W           | 550 W           |
| Fuses                        | F1-T10A<br>F2-T8A                 |                 |                 |
| Refrigeration unit           |                                   |                 |                 |
| Compressor                   | 13.54 cm³                         |                 |                 |
| Expansion                    | Direct with capillary tube        |                 |                 |
| Cooling system               | Forced air with evaporator 2 fans |                 |                 |
| Refrigerant type             | R-134A                            |                 |                 |
| Refrigerant charge           | 0,210 Kg                          |                 |                 |
| Adjustable temperature range | +2°C up to +10°C                  |                 |                 |
|                              |                                   |                 |                 |
| Climate class                | ST (+16°C up tp + 38°C)           |                 |                 |
| Noise level                  | < 70 dB                           |                 |                 |
| Electronic control           | MDB                               |                 |                 |
| Payment system protocol      | MDB / Executive                   |                 |                 |

Subject to technical changes



**Fig. 2.1**

### Standard configuration

The outside cabinet is made of insulated electro-zinc sheet with ecological polyurethane foam.  
Standard color Dark grey – Black – White  
Lighted front door product display  
Safety coin return  
Product anti-theft system  
Payment system arrangement  
Cooling system 2°C double temperature

### Optional

Coin box security  
Unbreakable window  
Personalize colors  
Special decoded closing

Elevator  
Product delivery optical sensor  
Directing spirals



| <b>G-Snack Design Line Master <u>with CO2</u></b> |                                   |                        |                        |
|---|-----------------------------------|------------------------|------------------------|
| <b>Dimensions</b>                                 | <b>SDX - SMX</b>                  | <b>SD8 - SC8 - SM8</b> | <b>SD6 - SC6 - SM6</b> |
| Height (A)  | 1830 mm                           | 1830 mm                | 1830 mm                |
| Width (B)   | 1125 mm                           | 980 mm                 | 830 mm                 |
| Depth (C)   | 845 mm                            | 845 mm                 | 845 mm                 |
| Weight  | 340 Kg                            | 310 Kg                 | 275 Kg                 |
| <b>Power supply</b>                               |                                   |                        |                        |
| Nominal voltage                                   | 230Vac                            | 230Vac                 | 230Vac                 |
| Nominal frequency                                 | 50 Hz                             | 50 Hz                  | 50 Hz                  |
| Max. power consumption                            | 600 W                             | 600 W                  | 550 W                  |
| Fuses   | F1-T10A<br>F2-T8A                 |                        |                        |
| <b>Refrigeration unit</b>                         |                                   |                        |                        |
| Compressor  | 1.75 cm <sup>3</sup>              |                        |                        |
| Expansion   | Direct with capillary tube        |                        |                        |
| Cooling system                                    | Forced air with evaporator 2 fans |                        |                        |
| Refrigerant type                                  | R-744                             |                        |                        |
| Refrigerant charge                                | 0,295 Kg                          |                        |                        |
| Adjustable temperature range                      | +2°C up to +10°C                  |                        |                        |
|   |                                   |                        |                        |
| Climate class                                     | ST (+16°C up to + 38°C)           |                        |                        |
| Noise level                                       | < 70 dB                           |                        |                        |
| Electronic control                                | MDB                               |                        |                        |
| Payment system protocol                           | MDB / Executive                   |                        |                        |

## 2.3 Description of components

1. Card Reader Cover
2. Display
3. Coin Return Push-Button
4. Coin Insert
5. Keyboard
6. Instruction Space
7. Door Lock
8. Coin Return
9. Lower Grid
10. Delivery Eyelet
11. Products Window



Fig. 2.3

1. Snack Mechanism
2. Led Support
3. Control Panel
4. Refrigerant System Cover
5. Delivery Eyelet
6. Door Lift Wheel
7. Levelling Screw

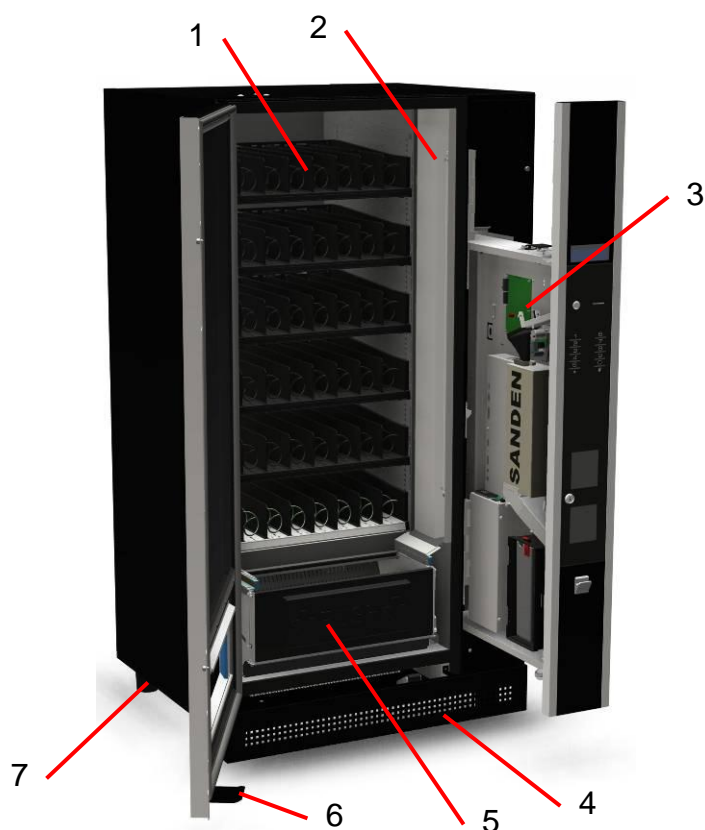
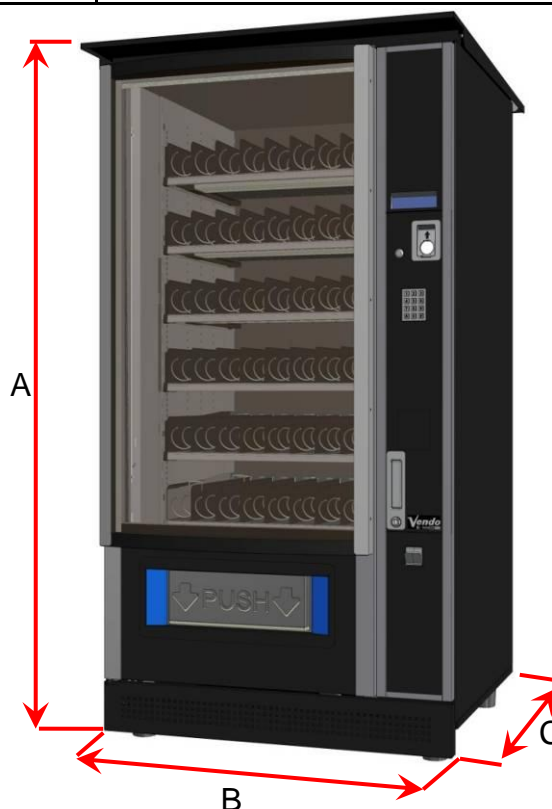


Fig. 2.4

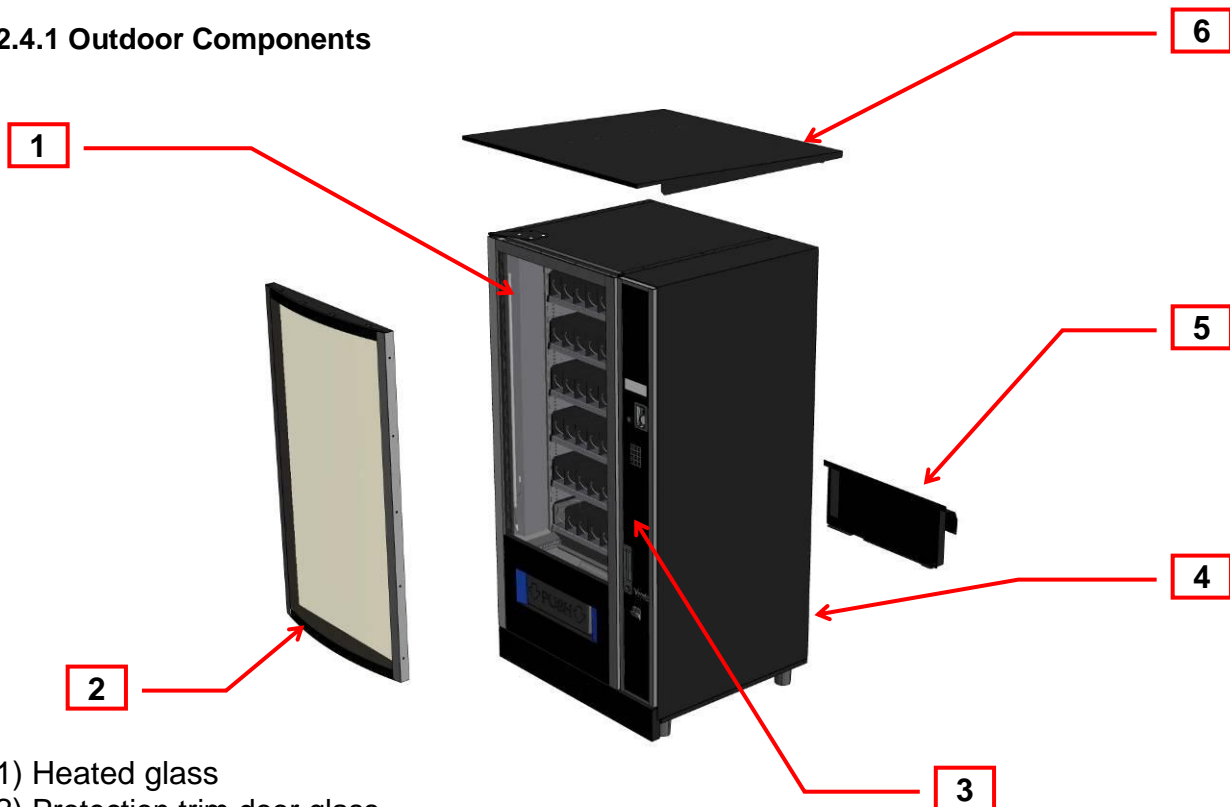
## 2.4 OutDoor Version

| G-Snack Design Line Master OutDoor |                                   |                      |                      |
|------------------------------------|-----------------------------------|----------------------|----------------------|
| Dimensions                         | SDXOD-SMXOD                       | SD8OD<br>SC8OD-SM8OD | SD6OD<br>SC6OD-SM6OD |
| Height (A)                         | 1872 mm                           | 1872 mm              | 1872 mm              |
| Width (B)                          | 1162 mm                           | 1015 mm              | 869 mm               |
| Depth (C)                          | 1010 mm                           | 1010 mm              | 1010 mm              |
| Weight                             | 365 Kg                            | 335 Kg               | 300 Kg               |
| Power supply                       |                                   |                      |                      |
| Nominal voltage                    | 230Vac                            | 230Vac               | 230Vac               |
| Nominal frequency                  | 50 Hz                             | 50 Hz                | 50 Hz                |
| Max. power consumption             | 600 W                             | 600 W                | 550 W                |
| Fuses                              | F1-T10A<br>F2-T8A                 |                      |                      |
| Refrigeration unit                 |                                   |                      |                      |
| Compressor                         | 13.54 cm³                         |                      |                      |
| Expansion                          | Direct with capillary tube        |                      |                      |
| Cooling system                     | Forced air with evaporator 2 fans |                      |                      |
| Refrigerant type                   | R-134A                            |                      |                      |
| Refrigerant charge                 | 0,210 Kg                          |                      |                      |
| Adjustable temperature range       | +2°C up to +10°C                  |                      |                      |
|                                    |                                   |                      |                      |
| Climate class                      | ST (+16°C up tp + 38°C)           |                      |                      |
| Noise level                        | < 70 dB                           |                      |                      |
| Electronic control                 | MDB                               |                      |                      |
| Payment system protocol            | MDB / Executive                   |                      |                      |

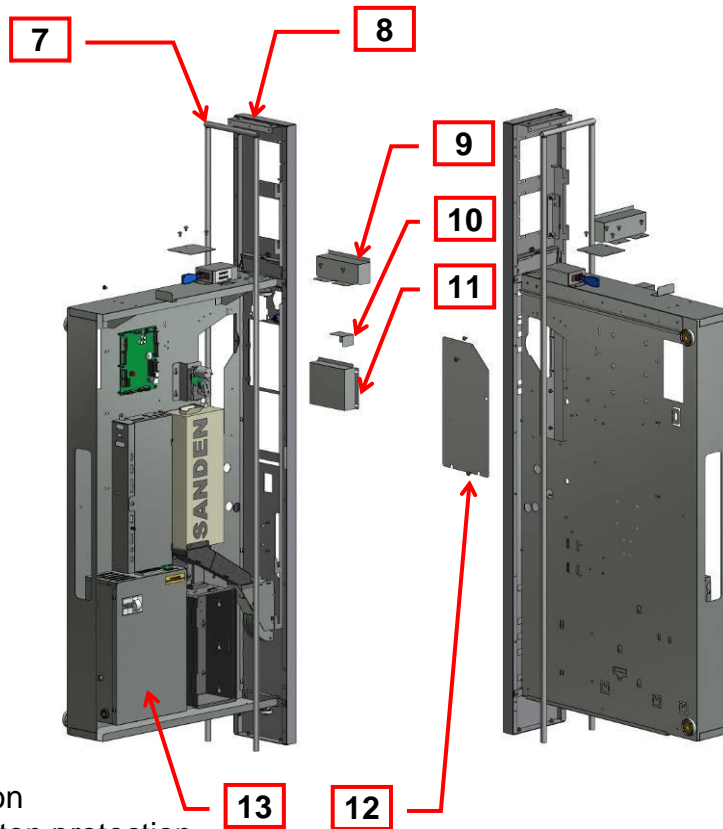
Subject to technical changes



### 2.4.1 Outdoor Components



- 1) Heated glass
- 2) Protection trim door glass
- 3) FMP Control Panel
- 4) Out-Door Refrigerant Unit
- 5) Rear cover
- 6) Roof



- 7) Gasket
- 8) Gasket support
- 9) Display protection
- 10) Coin return button protection
- 11) Keypad protection
- 12) Hole cover
- 13) Box transformer outdoor version

## 2.5 Referral programming manual

All the machine's control and operation settings can be set through the programming routine of the SVE01 electronic board.

The programming routine of the electronic board is described in the SVE01 PROGRAMMING MANUAL supplied with the vending machine.



The referral programming manual will change depending on the version of the software:



If the version of the software is 2.xx or more: the programming manual to which you should refer it is p/n 410738.

The software version 2.xx or more it is able to manage the Master - Slave connection.



If the version of the software is earlier than 2: the programming manual to which you should refer it is p/n 412487.

The software earlier than version 2 does not manage the Master - Slave connection.

### 3 INSTALLATION

#### 3.1 Transport and positioning

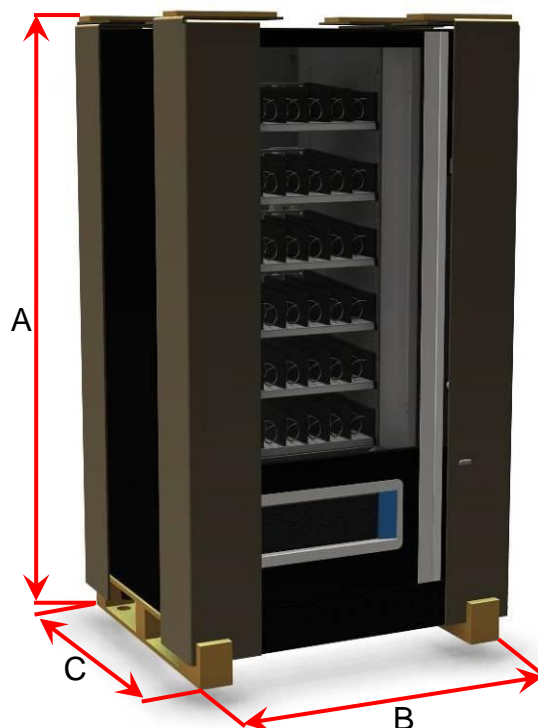


Fig. 3.1

| MODEL                 | A (mm) | B (mm) | C (mm) | GROSS WEIGHT<br>(Kg) |
|-----------------------|--------|--------|--------|----------------------|
| SDX - SMX             | 1900   | 1190   | 890    | 340                  |
| SDXOD - SMXOD         | 1960   | 1300   | 1100   | 365                  |
| SD8 - SC8 - SM8       | 1900   | 1010   | 890    | 310                  |
| SD8OD - SC8OD - SM8OD | 1960   | 1120   | 1100   | 335                  |
| SD6 - SC6 - SM8       | 1900   | 850    | 890    | 275                  |
| SD6OD - SC6OD - SM6OD | 1960   | 1000   | 1100   | 300                  |



**To transport and handle the vending machine, carefully follow the instructions below:**

- Use a pallet/lift truck with minimum carrying capacity of 400Kg. The wooden bases allow for gripping of the 4 sides of the vending machine.
- Should the machine not be installed immediately, store the vending machine vertically and in a dry and protected room.
- **CAUTION:** it is strictly forbidden to transport and/or position the vending machine horizontally.
- 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.
- Position the vending machine in the installation area, work carefully and avoid maneuvers that may cause damage to the machine.
- Remove all packaging from the vending machine, extract the power cable from the rear protective grille and carefully move it to its final position.

### 3.2 Installation environment features



**CAUTION: THE MACHINE IS NOT SUITABLE FOR OUTDOOR INSTALLATION WITHOUT THE OUTDOOR KIT.**



**CAUTION: DO NOT USE JETS OF WATER TO CLEAN THE VENDING MACHINE. IT IS NOT SUITABLE FOR INSTALLATION IN ENVIRONMENTS WHERE WATER JETS ARE USED.**

#### Environmental conditions for installing the vending machine

- The vending machines “**Model: G-Snack Design Line**” should be installed in environments/rooms where the temperature does not exceed 32°C or fall below 10°C. In temperatures outside these parameters the electrical parts (compressor) may be subject to overheating or may not work properly.
- Air circulation is crucial for the cooling and heating systems, there must be at least a 10cm gap between any obstructions to the rear of the vending machine.
- 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.

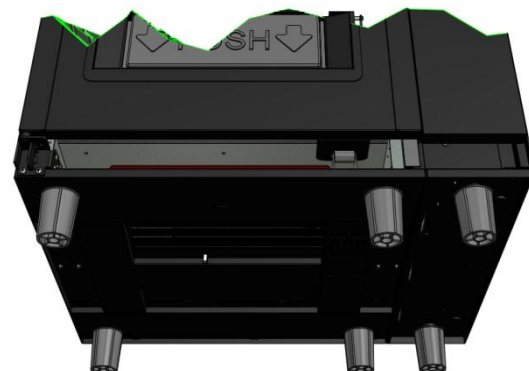
### 3.3 Removing the wooden bases



To remove the wooden bases, work as follows:

- With a pallet truck, lift the machine from the floor (holding it from the front)
- 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 for the right hand base and 2 screws for the left hand base.
- Fit the 4 feet on to the base of the machine
- Rest the machine on the floor.

#### 3.3.1 Removing the wooden bases on models SC8-SC6-SM8-SM6



On models [SC8-SC6-SM8-SM6] with the divisible base, where there are three wooden bases, must be mounted 6 feet as shown in the figure.

If don't installed 6 feet you cannot proceed to the division of the cabinet as described in paragraph 3.8 on page 25.

To remove the wooden bases, work as follows:

- With a pallet truck, lift the machine from the floor (holding it from the front)
- 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 and 2 feet on the base of the separated drawer;
- Rest the machine on the floor.
- If necessary you can proceed to the division.



### 3.4 Leveling

For correct operation the vending machine must be sited on a level surface. Any irregularities in the floor can be compensated by adjusting the screw-on feet on the vending machine in order to get it perfectly level and to guarantee stability.



**THE VENDING MACHINE WILL OPERATE CORRECTLY WHEN POSITIONED ON A HORIZONTAL SURFACE**

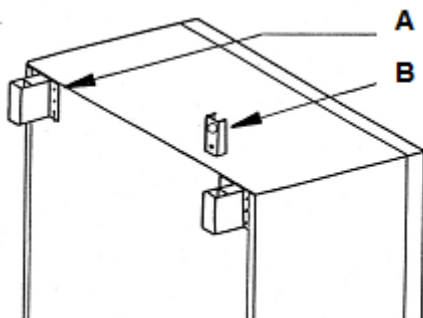
### 3.5 Stability

The stability of SandenVendo vending machines against overturning is guaranteed whether the vending machine is empty or 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:

#### 1) Wall fixing kit part number 135078/2



Kit consists of:

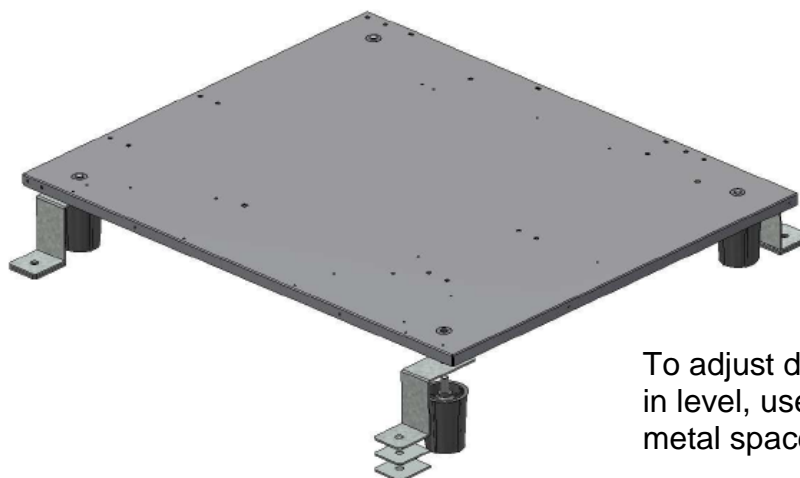
|                           |              |
|---------------------------|--------------|
| 2 x Welded rear bracket A | P/N 130461/1 |
| 2 x Bracket B             | P/N 386460   |
| 2 x Plugs with screw      | P/N 391598   |
| 12 x Screw                | P/N 390139   |

#### 2) Ground anchor kit part number 139218/1

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

Kit consists of:

|                                      |            |
|--------------------------------------|------------|
| 4 x Bracket for fixing to the ground | P/N 408028 |
| 8 x Metal spacers                    | P/N 407994 |



To adjust differences in level, use the metal spacers.



**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.**

### 3.6 Connection to power mains

#### SERVICE CORD INSTALLATION



- 1) Unscrew the 2 screws in FIG.1
- 2) Pull out the service cord until the fastening plate appears as in FIG.2
- 3) Fasten the plate with the 2 screws as in FIG.3



**CAUTION: 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, 50Hz 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.



**CAUTION: should you find any problem with the machine mains lead 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 supply cable, contact the manufacturer or technical support service.**



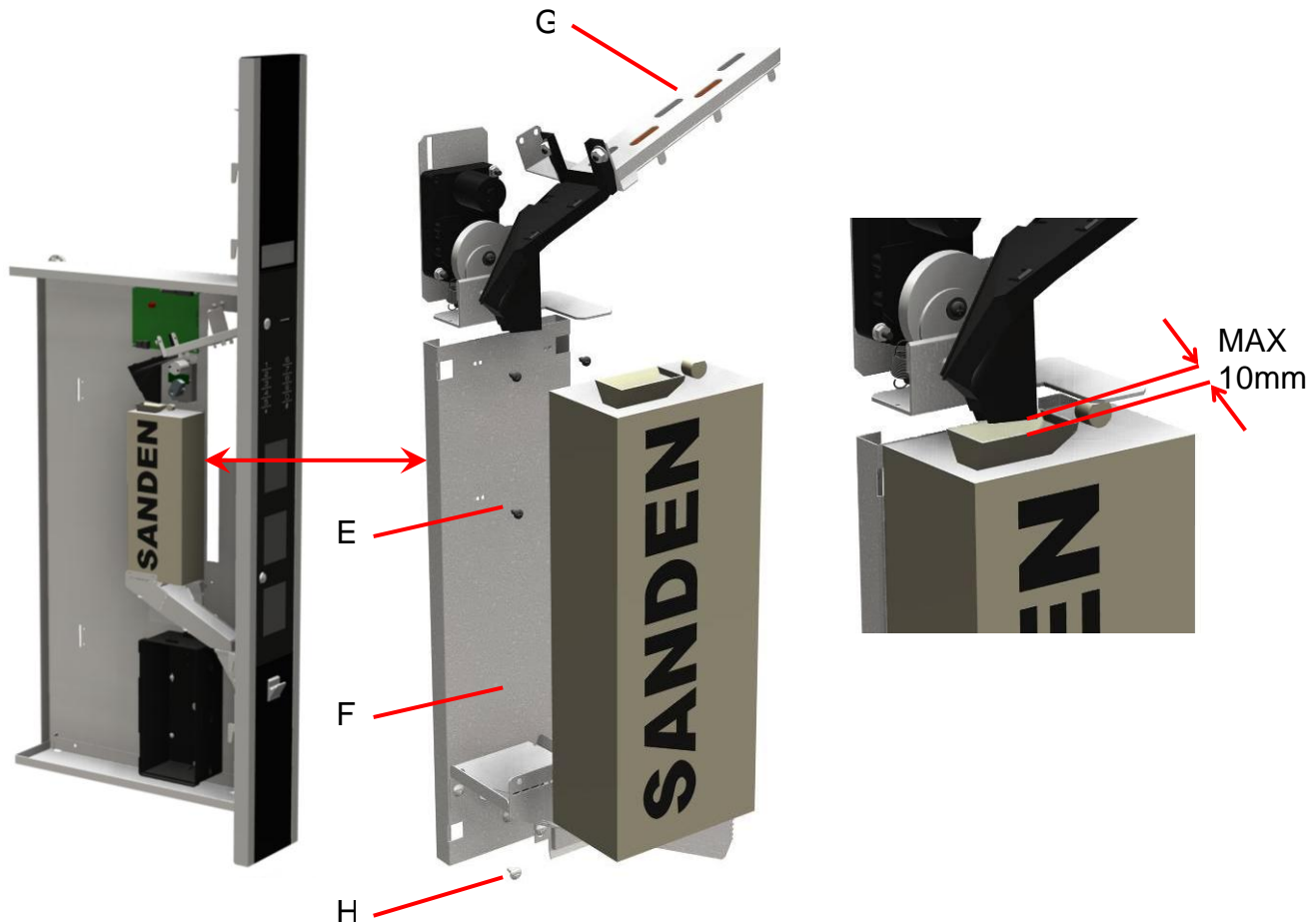
**CAUTION: NEVER USE EXTENSION LEADS**

You may now connect the machine to the mains electrical supply, the neon advertising panel and all the signal lamps of the empty selections should light up and the cooling system should start.

### 3.7 Installing the coin mechanism

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.

You can adjust this space by loosening the three fastening screws (H) on the door and then sliding it up and down. Once you have done this, remember to tighten the screws again.



You can move it at a right angle by placing spacers (washers 1) between the coin box door and the back of the coin box support.

When it is perfectly centered, remove the selector and tighten the 3 support screws (E).

**Caution:** these operations are not necessary if using the coin mechanism supplied by **SandenVendo Europe Spa**.

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.

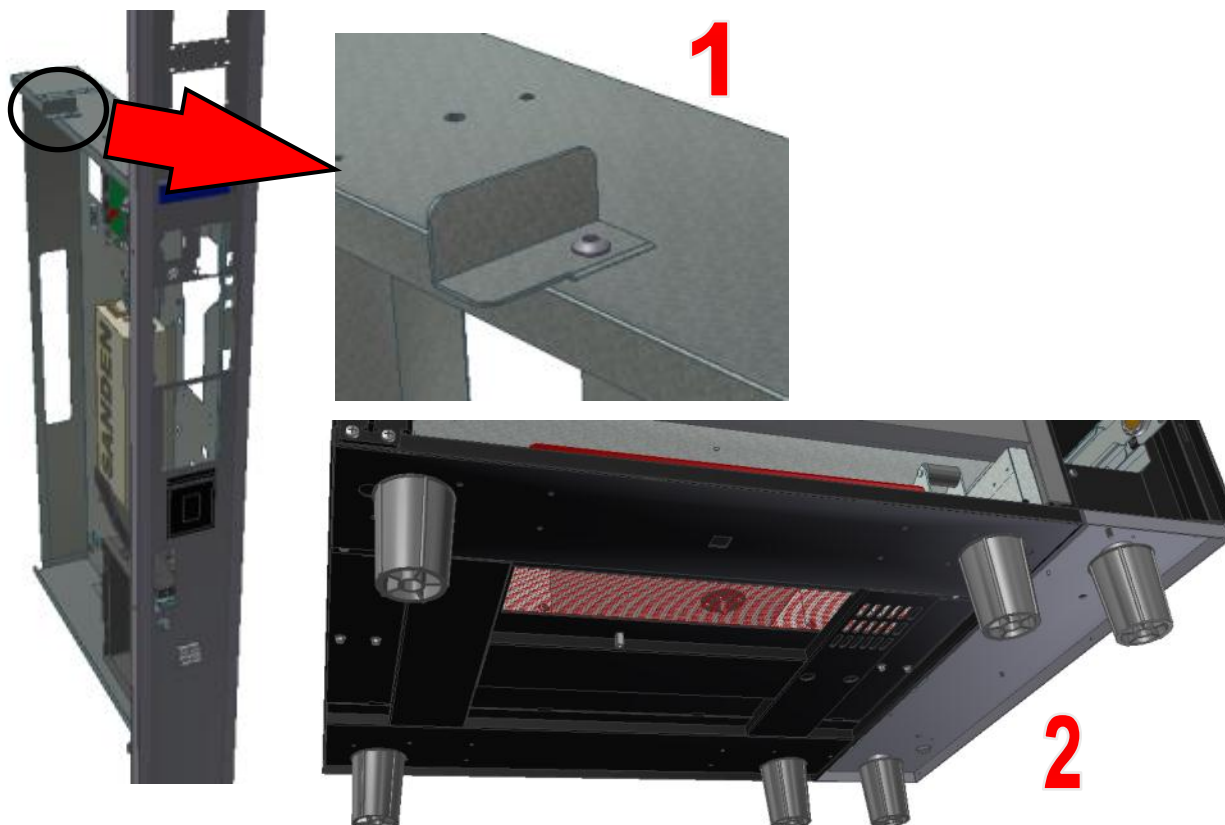
Connect the coin mechanism to the MDB connector. Note: (Disconnect the power before making any electrical connections, as you may cause damage to the coin mechanism and/or control board).



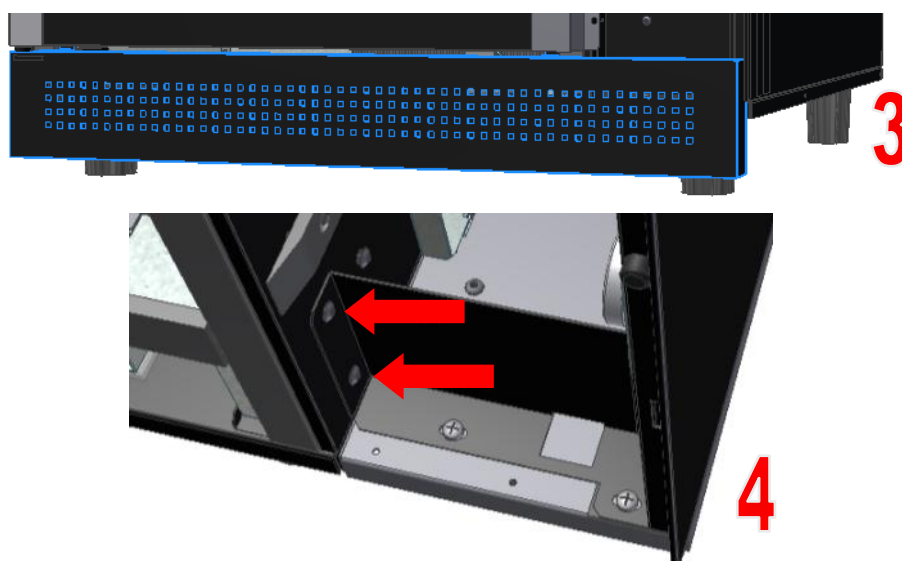
**THE COIN MECHANISMS WITH EXECUTIVE PROTOCOL HAVE 2 CONNECTORS, A POWER SUPPLY CONNECTOR (15 WAY MOLEX) THAT COMES DIRECTLY FROM THE TRANSFORMER BOX, AND A COMMUNICATION CONNECTOR FROM THE MAIN BOARD.**

### 3.8 How to split the vending machine model SC8 - SC6 - SM8 - SM6

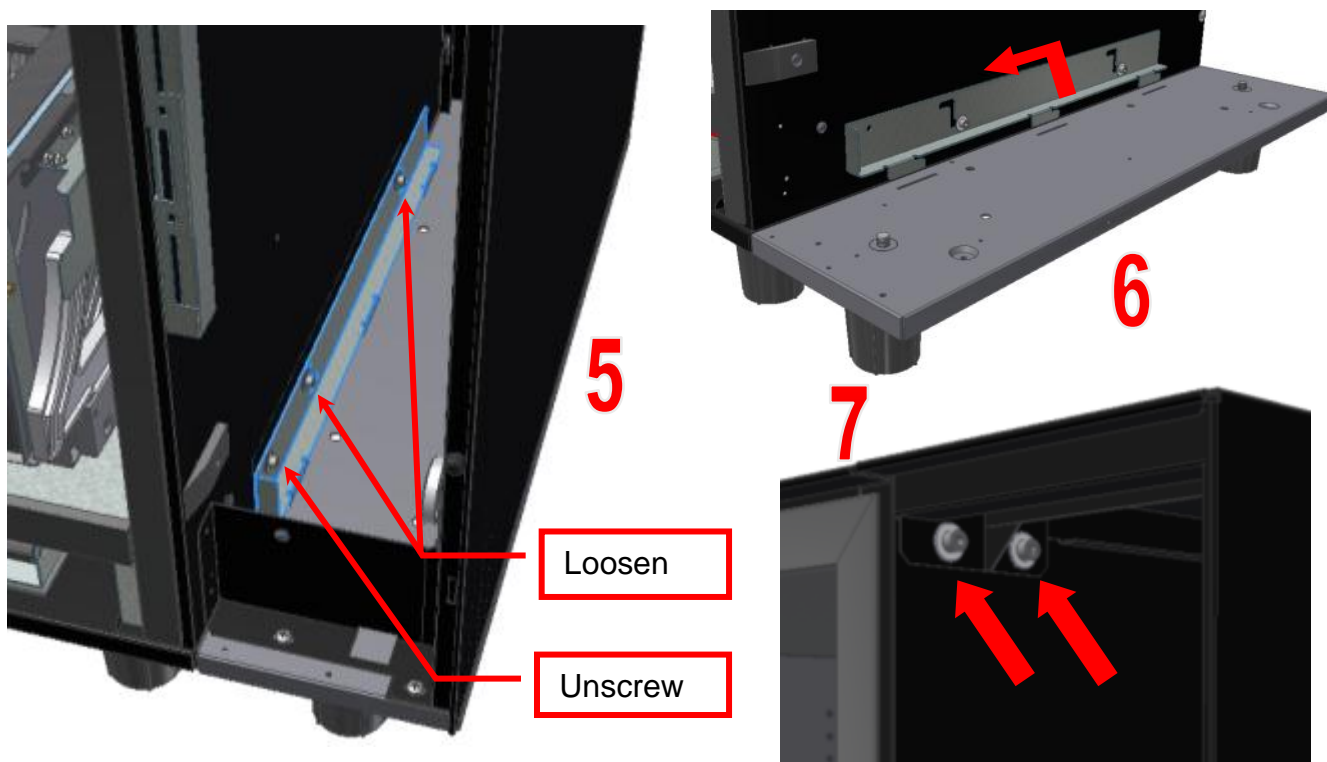
- Disconnect the vending machine from the power supply and put the service cord into the drawer
- Make sure the vending machine is stood on 6 levelling feet
- Open the drawer and remove the fixing bracket (see image 1)
- Disconnect all the harnesses that coming from the cabinet (N.B. the ground wires are fixed with screws) then remove the drawer from the vending machine



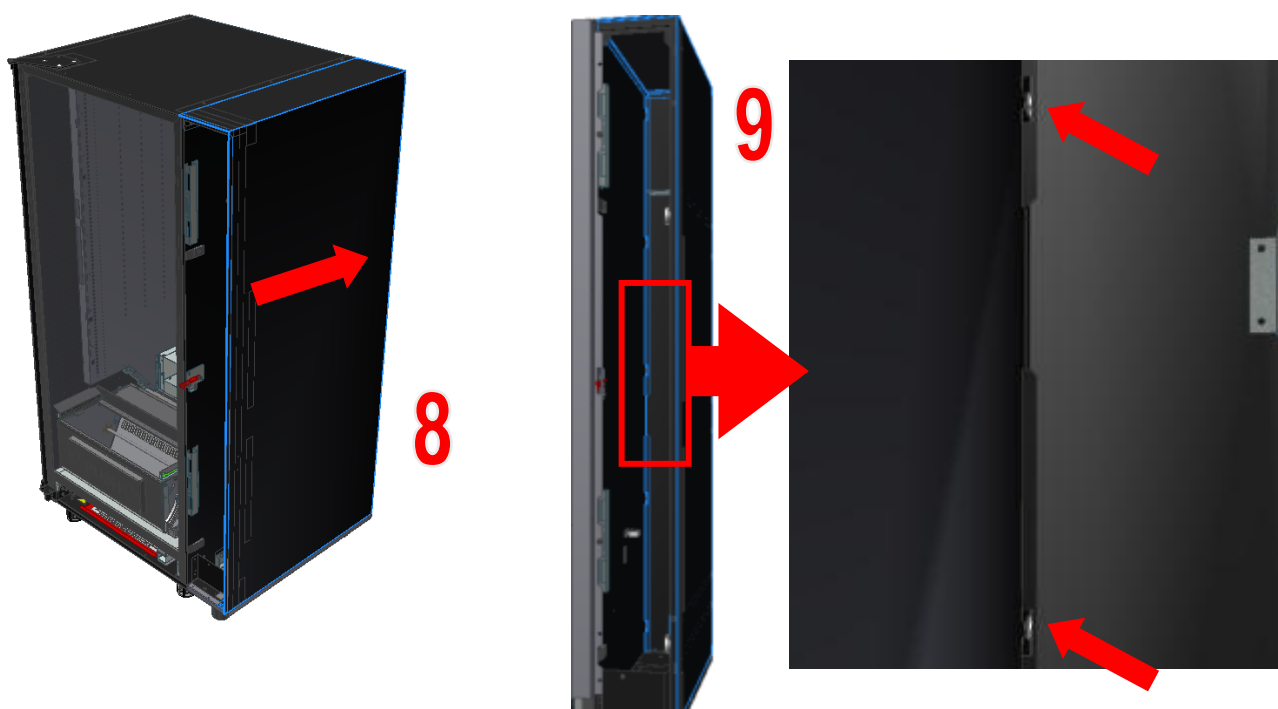
- Remove the carter under the door
- Remove the screws at the bottom on the cabinet (see image 4)



- Remove the first screw that fixes the base bracket blocker and loosen the other two (see image 5)
- Slide upwards the base bracket blocker along the slot
- Unscrew the two screws that fix the control panel box



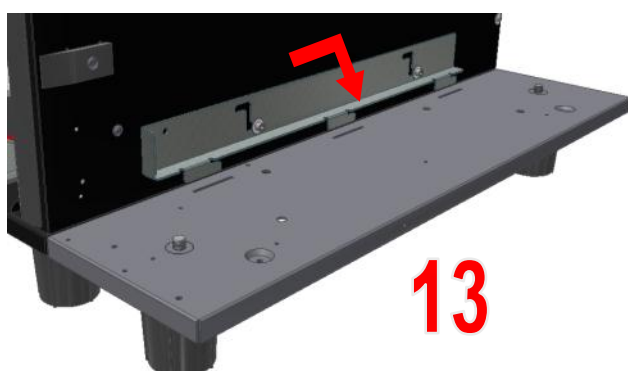
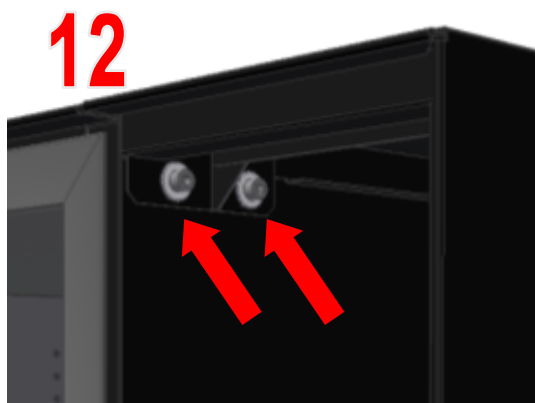
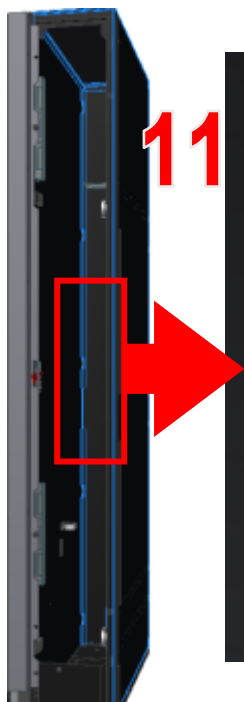
- Push the control panel unit backwards forcefully to release it from the screws on the back of the cabinet (attention: The control panel unit now is separated from the cabinet)



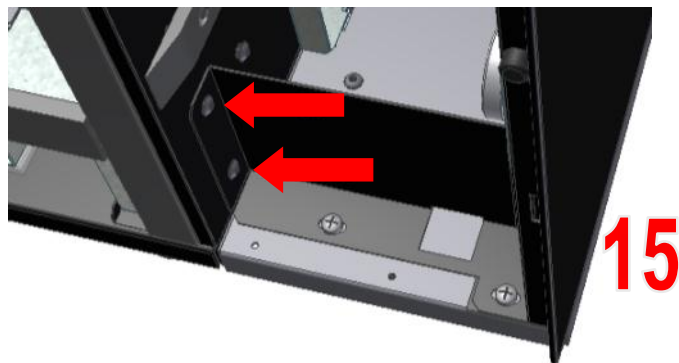


To assemble the vending machine you need to do as follow:

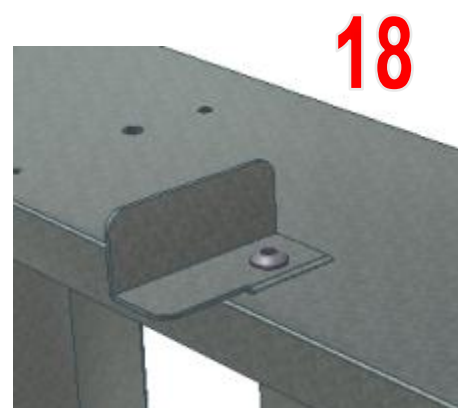
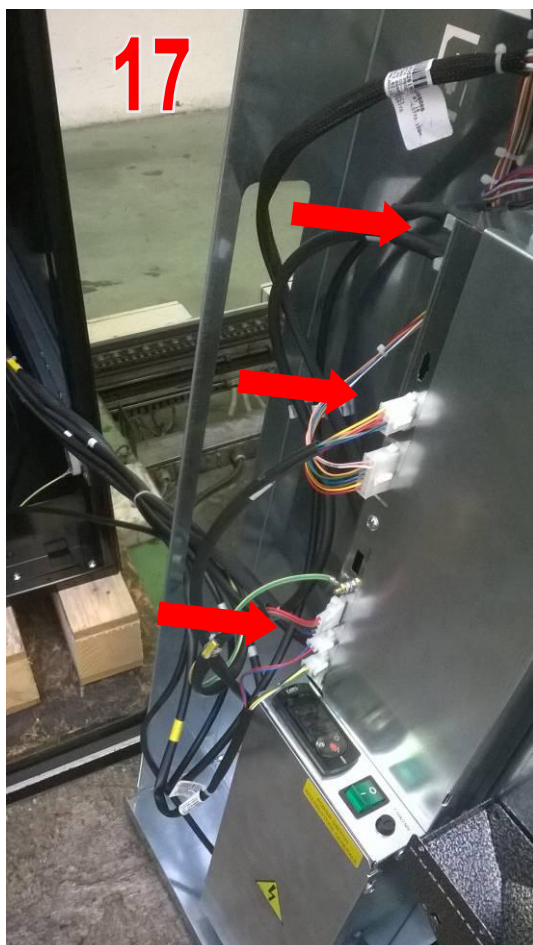
- Place the control panel unit to the right side of the vending machine, be careful to the harnesses (see image 10)
- Pull forward until the control panel unit properly fits the screw on the back of the cabinet (see image 11)
- Fix the control panel unit with screws on the top of the cabinet
- Secure the base with the base bracket blocker (see image 13 and 14)



- Fix the lower front of the control panel unit to the cabinet
- Reinstall the carter under the door



- Place the drawer near the control panel unit and connect all the harnesses on the transformer box
- Reinstall the drawer into the vending machine, making sure all the harnesses are properly connected
- Fix the fixing bracket



## 4 ACCESS TO INTERNAL PARTS

You can only access the internal parts of the machine (**maintenance area**) using the key supplied with the vending machine (ref. Fig. 4.1).

Access to the **service area** is only possible using the specially provided tool.

Hereunder is a list of the *service areas* of Vending Machines “**Model G-Snack Design Line**”.

- Tube LED (lighting area)
- Evaporator
- Transformer box

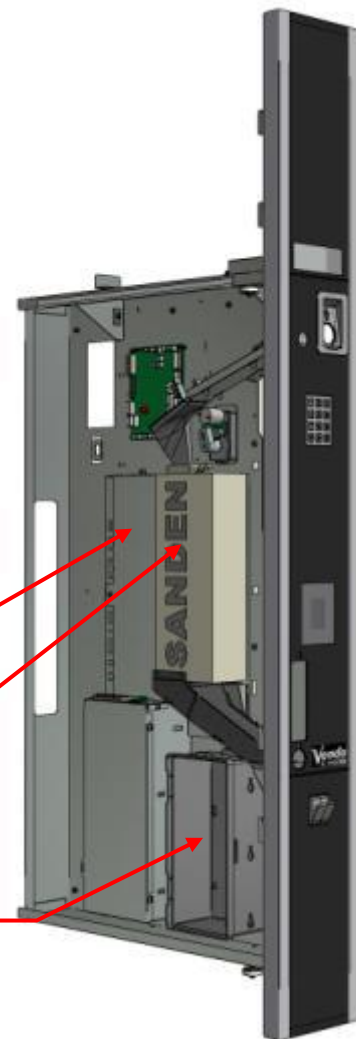


FIG 4.1

TRANSFORMER BOX

COIN MECHANISM

COIN BOX





## 5 USING THE VENDING MACHINE

### 5.1 Warnings

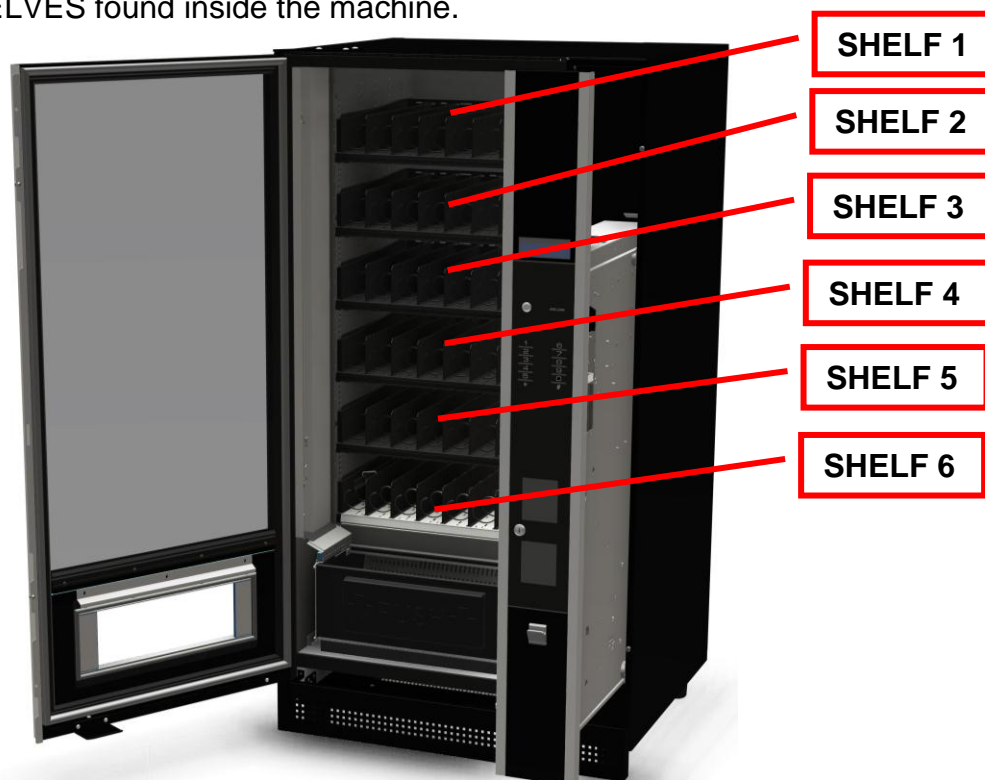
- **CAUTION:** NEVER LOAD THE VENDING MACHINE WITH PRODUCTS DIFFERENT TO THOSE RECOMMENDED BY THE MANUFACTURER (REFER TO CHAPTER: PROPER USE).
- **CAUTION:** NEVER LOAD THE VENDING MACHINE WITH PRODUCT FORMATS DIFFERENT FROM THOSE RECOMMENDED BY THE MANUFACTURER.

### 5.2 Proper use

The Vending Machines “**Model G-Snack Design Line**” have been designed and built for the sale and distribution of the packaged products.

### 5.3 Loading products

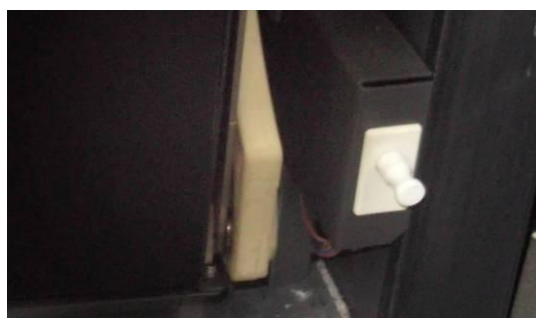
Product to be vended from the vending machine **Mod. G-Snack Design Line** can be loaded in the 6 SHELVES found inside the machine.



**Fig. 5.1 – Vending System**

To load products:

- Open the vending machine door (ref. 7.1 ACCESS TO MAINTENANCE AREA)
- To avoid any problems who loads the vending machine must not active the switches, one located above the drawer and one to the right of the delivery eyelet (see figure 5.2);
- Pull out each drawer until it stops
- Insert the desired products in the spaces between the spirals up to the full load, do not leave empty spaces;
- When filling the spirals check that the products are not too tight in their housing. If necessary replace the spiral with one that has a higher step.
- The products shall not be forced into the spaces because the package must fall by its own weight out of the spiral.
- Push the drawer back into its working position and check the electric connection
- Re-close the vending machine door and wait for the reset check of the parameter configuration



**Fig. 5.2 - Switch**

## 5.4 Configuration of the vending machine for 2 temperatures

The vending machine can be configured for 2 different temperatures inside the refrigerated cell, one for the sale of the food products (lower area) and one for the snack products (upper area).

The division of the two areas of temperature is done using two sheet deflectors that inserted inside the air channel delimit the height of the area to be cooled down, maintaining the desired temperature set on the electronic control unit.

The air channels situated inside the cell are practically the two side panels on which the supporting and sliding guides of the cassettes are fastened. To insert the deflectors, remove the two sheet covers situated on the front part of each channel to reach the appropriate hole that permits the insertion of the deflectors inside the channels (photo 2).

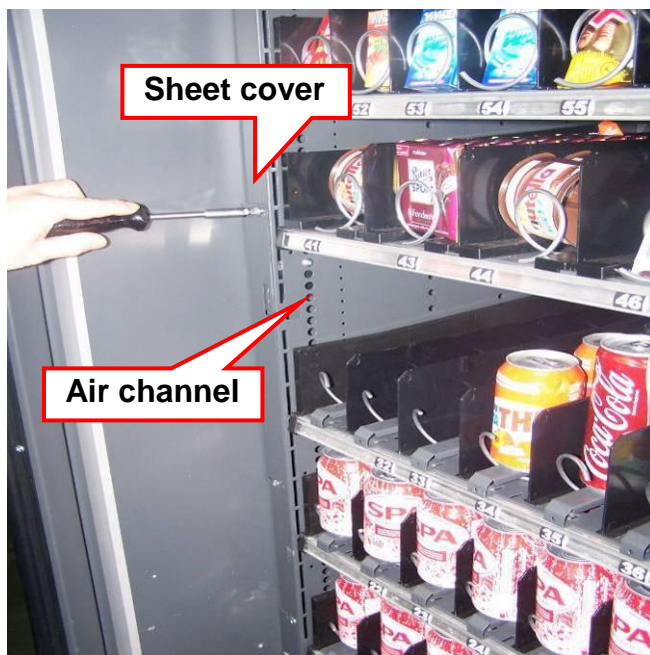


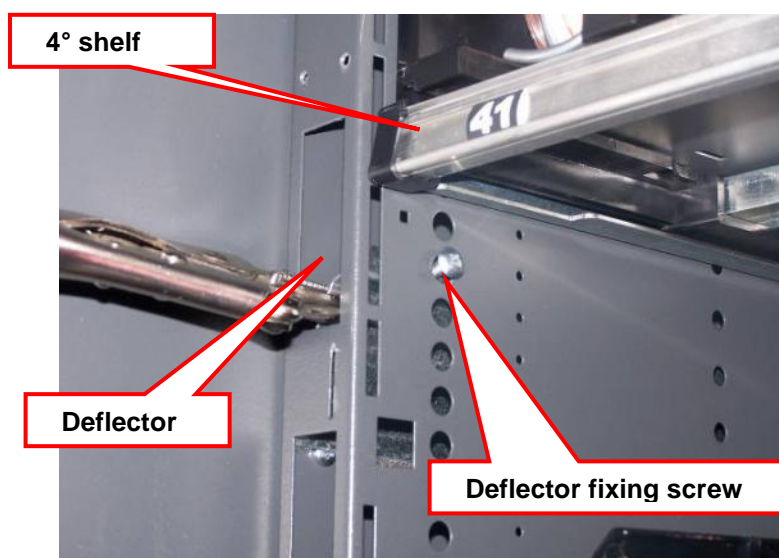
Photo 2



Photo 3

Once the cover of the air channel is removed, insert the reflectors (photo 3) inside the channel. To place it correctly, use 2 fixing holes as a reference which should be found upper side of deflector. A larger hole will be found at rear end. With a “self-locking” type pliers, keep the deflector in horizontal position and insert it completely inside the air channel at the desired height. In this way, the chilled air from the cooling system that entered in the air channel is not able to pass through the deflectors, thus, define the cold area with controlled temperature (food area), which is the area under the deflectors, and upper area will have higher temperature (layered) for the sale of snack products.

**Example:** To have 2 lower cassettes for sale of fresh perishable products, place the 2 deflectors in the air channel, just below the cassette guide of 3<sup>rd</sup> cassette. To have 3 lower cassettes as “food” area, the deflectors should be placed just below the cassette guide of 4<sup>th</sup> cassette (see photo 4)



**Photo 4**



**WARNING:** The maintenance and the sale of the fresh perishable products should be done in accordance with the law regulations in force, which obliges to respect the cold chain throughout the transportation, till the product is supplied to the final client. Therefore, all the products loaded inside the vending machine in “food” area should already have suitable preservation temperature. Also in case of selling the non-perishable product in the “food” area (such as bottles and cans) along with the perishable products, all products should have the preservation temperature. This is to avoid the vending machine to go out of order, caused by an increase of mass temperature, as a consequence of loading the warmer products which increase the temperature of other products.

Illustrative table of the vending machine internal temperature with sub-division of 2 areas; 3 “Food” and 3 “snack” cassettes

| Set temperature 1°C |                          |   |   |   |
|---------------------|--------------------------|---|---|---|
| Ambient temperature | 3 Food shelf temperature | 4 <sup>th</sup> Snack shelf temperature | 5 <sup>th</sup> Snack shelf temperature | 6 <sup>th</sup> Snack shelf temperature |
| 20°C                | 0÷4°C                    | 3.3°C                                   | 3.6°C                                   | 4.7°C                                   |
| 25°C                | 0÷4°C                    | 4°C                                     | 4.3°C                                   | 5.7°C                                   |
| 32°C                | 0÷4°C                    | 5.3°C                                   | 5.8°C                                   | 8°C                                     |

N.B.: The current Vending machine has been designed to work with the ambient temperature between 18 and 32°C. Although the performance remain unchanged for a higher temperature (see the above table), we do not guarantee a perfect function for an extended period, in case the ambient temperature is superior to the designed temperature.

### **Recommendation for correct product loading**

When the Vending machine is set with 2 different temperatures; “food” and “snack”, especially in the hot period (high ambient temperature), we recommend to proceed the product loading in the following order; “snack” products first and then all the “food” products.

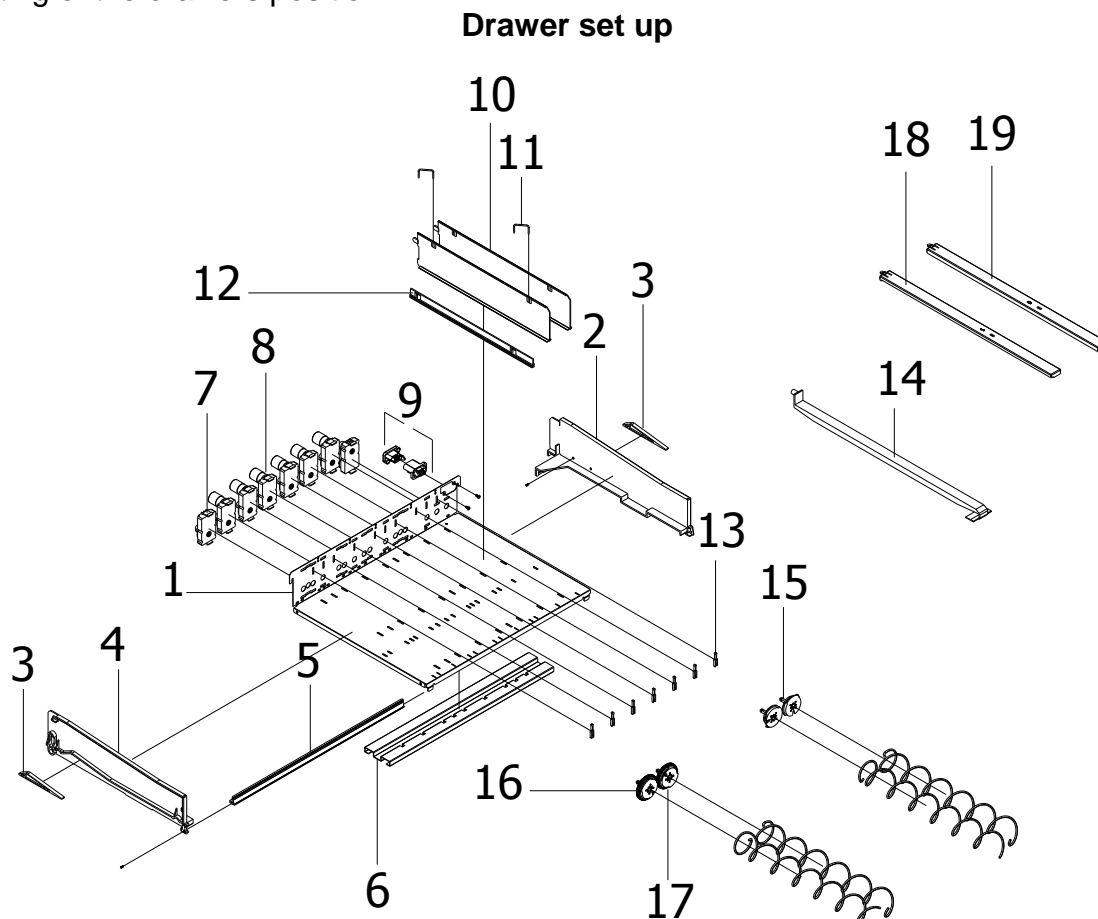
Doing this way, the perishable products, which are more sensitive to heat, will remain intact till the last instant in the refrigerated container which is used for the transportation. The products will be loaded into the vending machine at the optimal temperature, without being affected by the sudden change in temperature.

Loading operation should always be done as quickly as possible, in order not to alter the quality and freshness of the products and roughly in the time range of 10 minutes.

## 5.5 Product vending adjustments

Once you have decided upon the product you wish to vend, you need to make the appropriate adjustments to the machine itself. The adjustments are as follows:

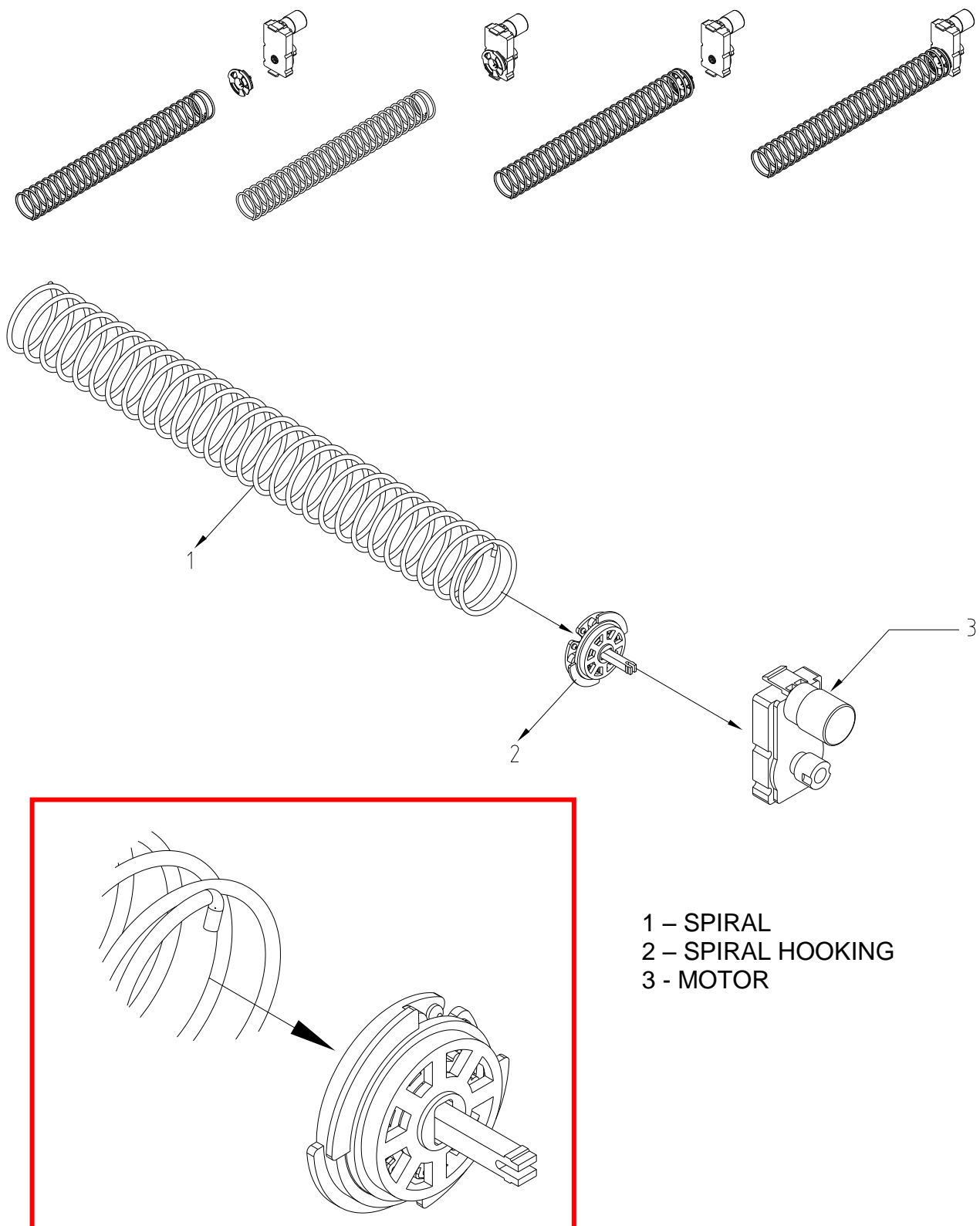
- a) Spirals
- b) Spirals replacement
- c) Number of spirals for each drawer
- d) Setting of the drawers position



**Fig. 5.2 – DRAWER COMPONENTS**

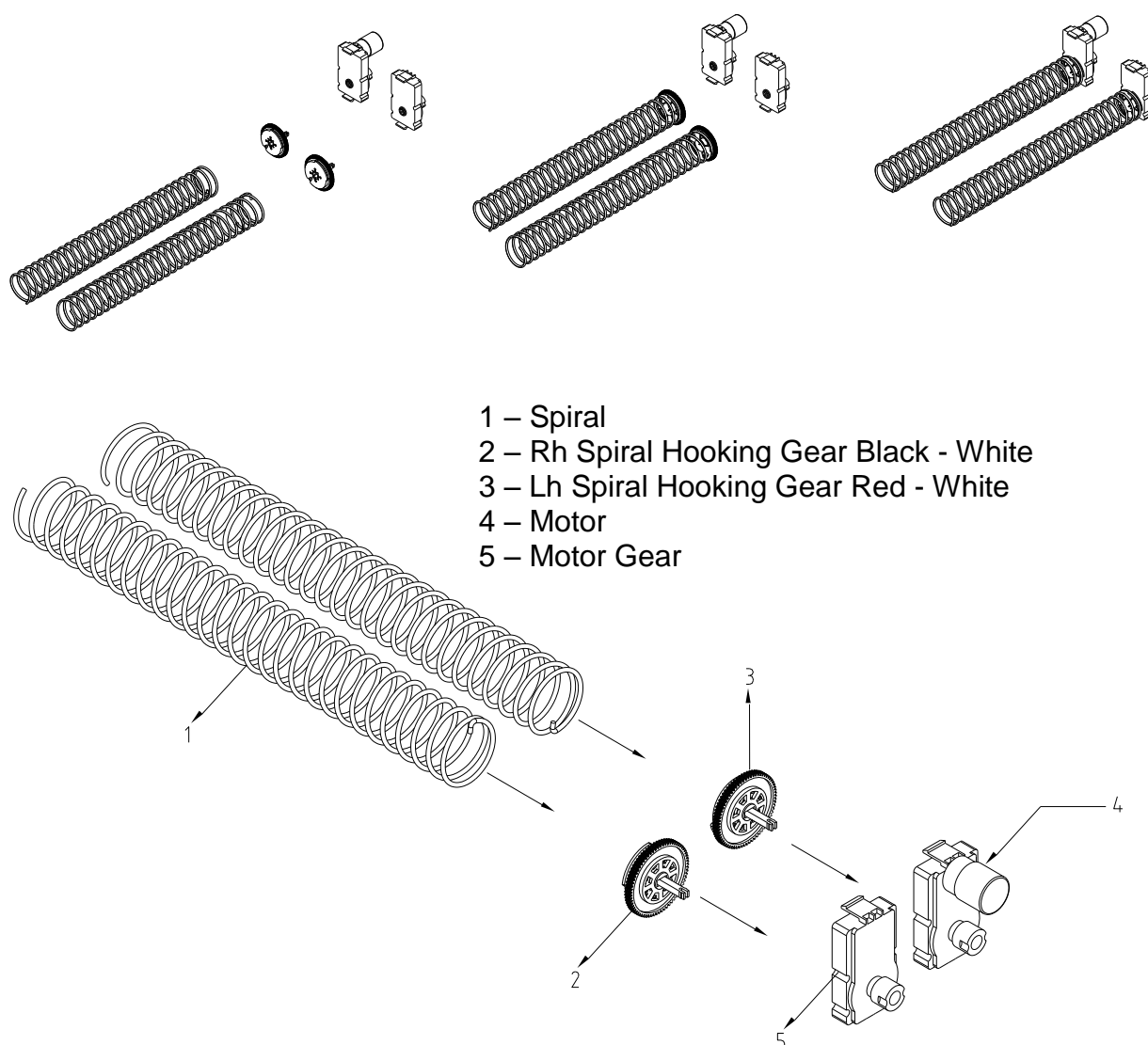
- |                             |  |
|-----------------------------|--|
| 1. Snack Drawer             | 10. Drawer Divider                       |
| 2. RH Snack Drawer Guide    | 11. Divider Hook                         |
| 3. Guide Insert             | 12. Squeezer                             |
| 4. LH Snack Drawer Guide    | 13. Key Stopper for Divider              |
| 5. Holder Label Profile     | 14. Cans Support                         |
| 6. Drawer Central Reinforce | 15. LH Spiral Hooking Red - White        |
| 7. Motor Gear               | 16. RH Spiral Hooking Gear Black - White |
| 8. Drawer Motor             | 17. LH Spiral Hooking Gear Red - White   |
| 9. Drawer Harness           | 18. LH Narrow Spacer                     |
|                             | 19. RH Narrow Spacer                     |





**FIG. 5.3– SINGLE SELECTION SPIRAL ASSEMBLING**

## DOUBLE SELECTION



**FIG. 5.4 – DOUBLE SELECTION SPIRAL ASSEMBLING**



### **Adjustment of the spiral end position**

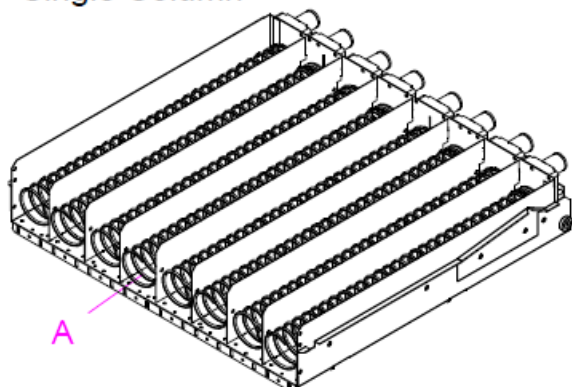
For a stable product support and a reliable dispense the correct adjustment of the spiral end position is very important.

The spiral end position is set properly when the product is safely held and is pushed out from the spiral end.

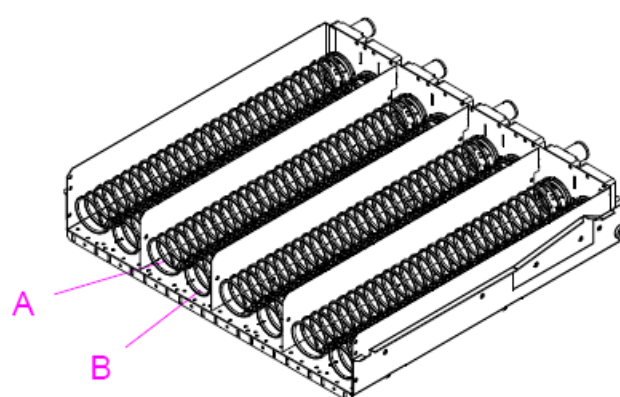
Turn the spiral counterclockwise, for the control of sales according to product.

## Set-Up Spiral

Single Column



Double Column



| SPIRALE PER SNACK SX<br>SPIRAL FOR SNACK LEFT |  |   |   |  |
|---|--|---|---|--|
| POS.  | PARTICOLARE N°<br>PARTICULAR NUMBER<br>BESTIMMTE ZAHL<br>NOMBRE PARTICULIER<br>NÚMERO PARTICULAR | DIAMETRO<br>DIAMETER<br>DURCHMESSER<br>DIAMÈTRE<br>DIÁMETRO | PASSO<br>STEP<br>SCHRITT<br>ETAPE<br>PASO | N°PRODOTTI<br>NUMBER PRODUCTS<br>ZAHLPRODUKTE<br>NOMBRE PRODUITS<br>NÚMERO PRODUCTOS |
| A   | 404556   | 64.5  | 18.5                                      | 24   |
| A   | 404556/1   | 64.5  | 25  | 17   |
| A   | 404556/2   | 64.5  | 30  | 14   |
| A   | 404556/3   | 64.5  | 35  | 12   |
| A   | 404556/4   | 64.5  | 45  | 10   |
| A   | 404556/5   | 64.5  | 55  | 8  |
| A   | 404556/6   | 64.5  | 65  | 7  |
| A   | 404556/8   | 64.5  | 85  | 5  |
| A   | 404556/9   | 64.5  | 40  | 11   |
| A   | 404556/10  | 64.5  | 77  | 6  |
| A   | 404556/11  | 64.5  | 95  | 4  |
| A   | 404556/12  | 64.5  | 105                                       | 4  |

| SPIRALE PER SNACK DX<br>SPIRAL FOR SNACK RIGHT |  |   |   |  |
|--|--|---|---|--|
| POS.   | PARTICOLARE N°<br>PARTICULAR NUMBER<br>BESTIMMTE ZAHL<br>NOMBRE PARTICULIER<br>NÚMERO PARTICULAR | DIAMETRO<br>DIAMETER<br>DURCHMESSER<br>DIAMÈTRE<br>DIÁMETRO | PASSO<br>STEP<br>SCHRITT<br>ETAPE<br>PASO | N°PRODOTTI<br>NUMBER PRODUCTS<br>ZAHLPRODUKTE<br>NOMBRE PRODUITS<br>NÚMERO PRODUCTOS |
| B  | 405801   | 64.5  | 18.5                                      | 24   |
| B  | 405801/1   | 64.5  | 25  | 17   |
| B  | 405801/2   | 64.5  | 30  | 14   |
| B  | 405801/3   | 64.5  | 35  | 12   |
| B  | 405801/4   | 64.5  | 45  | 10   |
| B  | 405801/5   | 64.5  | 55  | 8  |
| B  | 405801/6   | 64.5  | 65  | 7  |
| B  | 405801/8   | 64.5  | 85  | 5  |
| B  | 405801/9   | 64.5  | 40  | 11   |
| B  | 405801/10  | 64.5  | 77  | 6  |
| B  | 405801/11  | 64.5  | 95  | 4  |
| B  | 405801/12  | 64.5  | 105                                       | 4  |

**FIG. 5.5 – DRAWER SETTING**

### 5.6 Final check

- 1- Load the drawers with product
- 2- Test several selections, check the reloading and the delivery of the products

If necessary you can send samples of your product to Sanden Vendo for testing to obtain the correct set up.



**COMMON PRODUCTS ARE NORMALLY TESTED AT OUR FACTORY. ASK FOR THE SET NUMBER OF THE PRODUCT YOU WISH TO SELL AND REFER TO THIS NUMBER WHEN ORDERING; WE WILL MANUFACTURE THE VENDING MACHINE ACCORDING TO YOUR SPECIFICATIONS.**

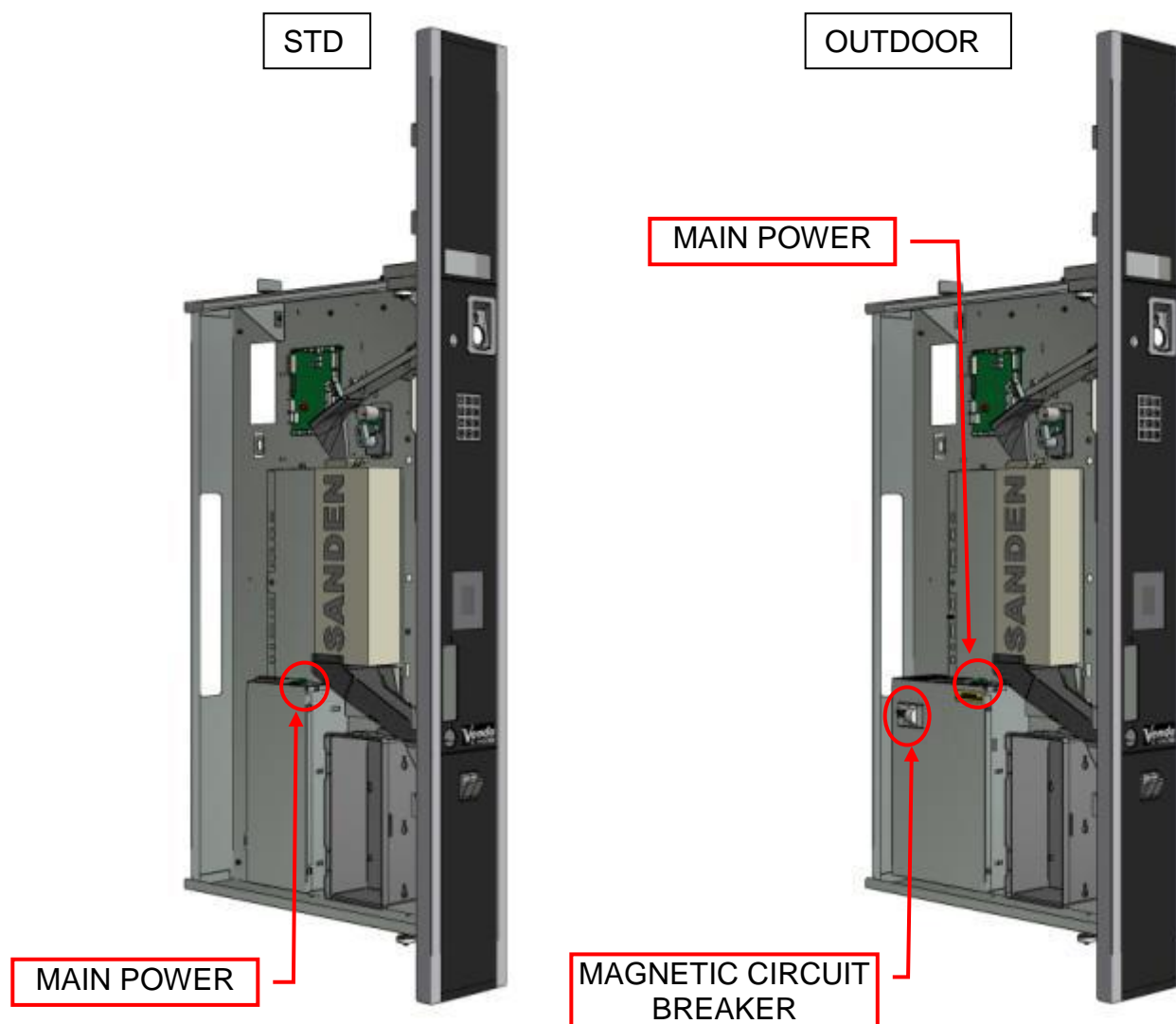


## 5.7 Start-up

To start-up the Vending machine, please follow the instruction below:

- Make sure the plug is connected to the mains supply
- To power the vending machine: press the luminous green **MAIN POWER on/off SWITCH** (ref. Fig. 5.7) situated on the transformer box inside the machine (lower right hand side)
- On models with OutDoor kit to dive power to the vending machine you must also enable the magnetic circuit breaker on the bottom of the drawer.
- Execute the programming routine: refer to Programming Manual SVE01.
- Load the vending machine with the desired products
- Close the vending machine door and wait for the general machine check
- The vending machine is now ready for use

**! CAUTION: IN CASE OF FAILURE AND/OR POOR MACHINE OPERATION, CONTACT TECHNICAL SUPPORT AT OUR SERVICE CENTER**



**FIG. 5.7 – Box Transformer**

## 5.8 Elevator (optional)

The elevator is one of the options on the **G-Snack Design Line MASTER** models. The elevator collects the product from the shelf and takes it to the delivery door on a tray, this avoids product being damaged when falling.



The elevator has a rest position (called home position) which is at the top of its course. In this position the shelf of the elevator doesn't allow the extraction of the upper cassette for the loading operation.

For safety purpose the elevator is inhibited through a push button switch that operates automatically when the door is opened.

This switch is situated on the right shoulder of the eyelet in the lower part.

To load the upper cassette it is sufficient to lower the shelf manually until the upper cassette can be extracted.

At the end of the loading operations, when the door is closed the switch will permit the correct supply to the motor and the elevator will automatically go to home position.

The mentioned switch must never be activated while filling.

It can only be activated for maintenance and only by qualified personnel.

During the loading operations, or spiral or motor replacements on the cassette it is possible to use the elevator manually; the shelf position can vary according to the different needs.

Place the palms of each hand on the extremities of the elevator shelf and push or lift it delicately, until reaching the position to extract the drawer for loading.



ENSURE  
CASSETTE  
IS PUSHED  
FULLY BACK





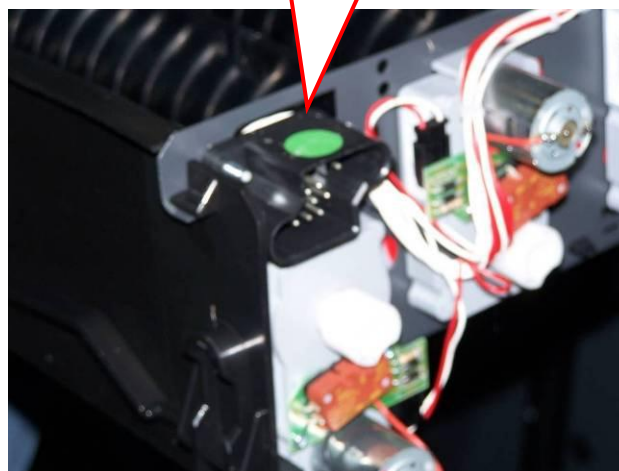
## ATTENTION: INSERT DRAWER

During the insertion of the cassette inside the cell be careful of the connector plug.

**FEMALE CONNECTOR**



**MALE CONNECTOR**



## Suggestions and limits

Some products, mainly bottles, could lean against the edge of the cassette



In this case, it is sufficient to programme the stopping of the elevator at a lower level. For example, if the elevator is programmed at position 39 and the product is leaning, the elevator could be programmed at position 40, and then 41, until a correct position is found. Other products, mainly bottles, with length similar to the distance between the window and the cassette (around 200mm) could remain blocked in such space. The best solution, in addition to the one mentioned above, is to avoid selling the product with the elevator and place the products on the lower shelf .

The space between the elevator and the cassette is very limited. This permits to sell even thin products with the elevator. Obviously there are products that could drop in the space between the elevator and the cassette.

For the same reason the products in the spirals shouldn't stick out of the cassette, otherwise the elevator when passing could hook them up and stop.

The elevator has a sophisticated control of the current absorption and therefore damages are not produced, but the vending machine could go out of order.



## 5.9 Motorized Locking for Delivery Eyelet (optional)

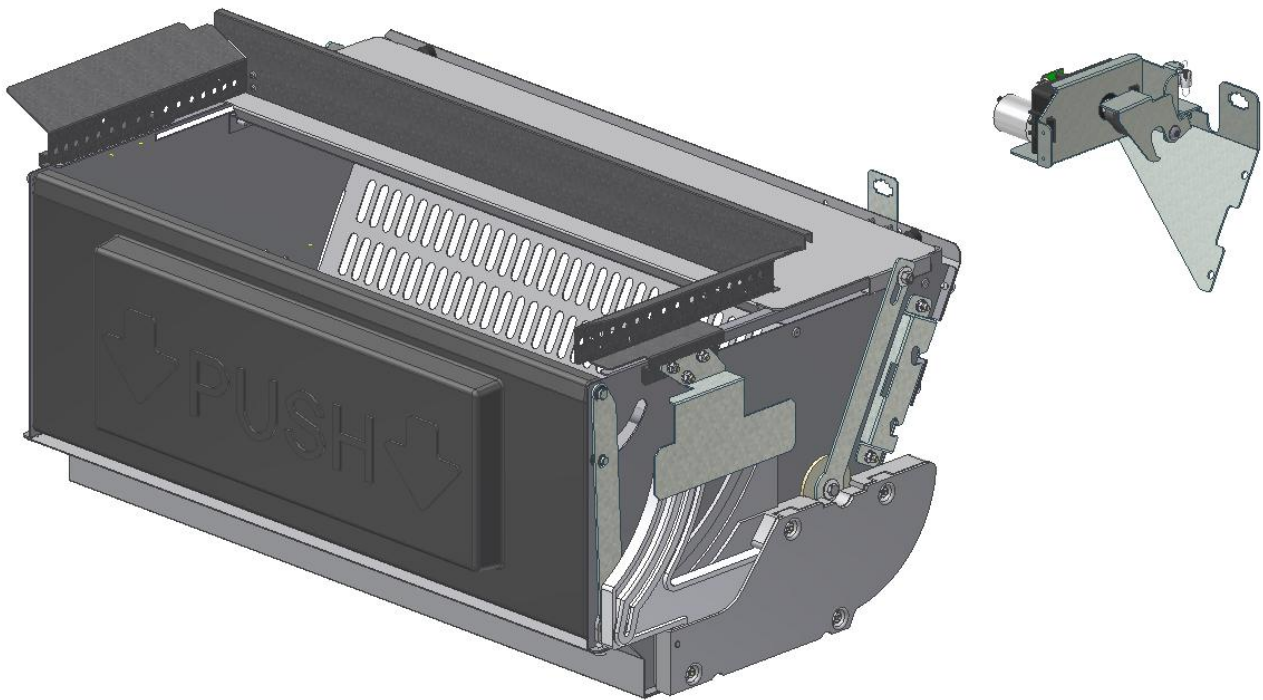
Among options of the models **G-Snack Design Line** is also available a "Motorized Locking for Delivery Eyelet" kit.

The kit, when installed and activated from the programming menu, locks the delivery eyelet until a selection is made. Only after you have inserted the coin and made a selection, the motor of the kit releases the hook for a pre-set time.

During this period the delivery eyelet remains unlocked.

When time has run out, the motor rotates the cam and the hook is released.

When the door of the delivery eyelet is closed again, the kit locks it.



## 6 DESCRIPTION AND FUNCTION OF CONTROL UNIT

### 6.1 Control Unit EASY CAREL

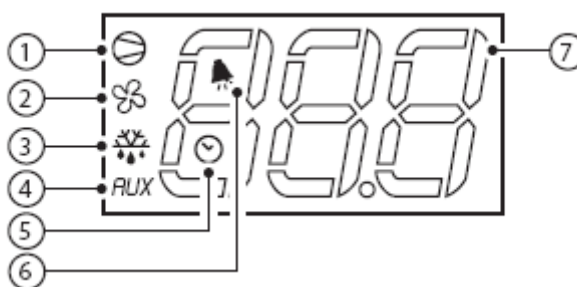
The electronic control unit EASY CAREL regulates and controls the refrigerant system and all its components: The compressor, the fans, the defrosting, and is independent of the control of the board SVE01, which control the electronics of the distributor.



On the front of the control unit are: 3 digits, 6 LED indicators that show the operating conditions and 3 buttons.

#### 6.1.1 Display

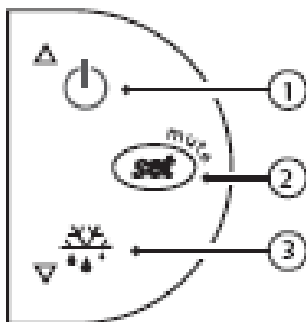
1. Compressor LED
2. Fan LED
3. Defrost LED
4. Auxiliary exit
5. Watch
6. Alarm
7. Numbers



The LED light on the display show the operation of the cooling system.

- 1 Compressor LED: indicates the status of the compressor.
  - LED is lit, the compressor is ON
  - LED blinks, the compressor is waiting before starting (check ES)
  - LED OFF, the compressor is OFF.
- 2 Fan LED: indicate the status of the evaporator.
  - LED is lit, the fans are running
  - LED blinks, the fans are waiting before starting
  - LED OFF, The fans are turned off
- 3 Defrost LED: indicate the status of the defrost.
  - LED is lit, The defrost mode is ON
  - LED blinks, is in drip mode after defrost
  - LED OFF, defrost is OFF.
- 4 Auxiliary exit: not used in this vendor.

### 6.1.2 Keyboard



**Key 1 "UP"**, in normal function if pushed for more than 1 second, it visualizes the temperature of probe 2 (evaporator). If pushed during the visualization of the set point it increases the set value.

**Key 2 "SET"**, pushed more than 1 second allows the visualization and setting of the set point

**Key 3 "DOWN"**, pushed for more than 3 seconds starts or stops the defrost, and if it is pushed during the visualization of the set point it decreases the set value.

### 6.1.3 Set the temperature

The setting of the internal temperature is performed via the control unit in the following manner:

Press for more than 1 second the button 2 "SET", the display show the set point temperature setting.

To increase or decrease the value press button 1 "UP" or 3 "DOWN".

Press button 2 "SET" to confirm the new value.

### 6.1.4 Quick defrost

You can start a defrost without changing the interval set on the controller.

If the gasket is damaged or the delivery door remains open too long (for example is blocked by an object) the hot air enters into the cold store thus creating ice above the evaporator which blocks the passage of air.

To solve the problem you need to initiate an additional defrost action that may be performed in a few steps:

To start the defrost press and hold for 3 seconds the button 3 "DOWN". To stop the process, press again the button 3 "DOWN".

## 6.1.5 Description of the main signals and alarms

The error codes are displayed on the display alternating with the temperature gauge.

| ERROR                 | DESCRIPTION   |
|-----------------------|---|
| <b>ES</b>             | The compressor has a timing delay when starting, therefore the LED of the compressor on the display starts to flash.  |
| <b>E0</b>             | Still or flashing means an adjusting probe error:<br><ul style="list-style-type: none"> <li>• probe not working, the probe signal is interrupted or in short circuit;</li> <li>• probe is not compatible with the instrument;</li> </ul> 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 |
| <b>E1</b>             | Flashes evaporator probe error:<br><ul style="list-style-type: none"> <li>• probe not working, the probe signal is interrupted or in short circuit;</li> <li>• probe is not compatible with the instrument;</li> </ul>  |
| <b>EE</b>             | Visualized during functioning or activation<br>Error in reading of the machine parameters. See memorised data errors.   |
| <b>EF</b>             | Visualized during functioning or activation<br>Error in reading of the working parameters. See memorised data errors.   |
| <b>ED</b>             | The last defrosting finishes when exceeding the maximum time.<br>The indication disappears if the next defrost is finished correctly.   |
| <b>DF</b>             | Defrosting in course:<br><ul style="list-style-type: none"> <li>• it is not an alarm signal but an indication that the instrument is doing a defrosting.</li> </ul>   |
| <b>DISPLAY BLINKS</b> | The control unit display and all the LED's are flashing:<br><ul style="list-style-type: none"> <li>• indicates that the door is open, or that the door switch is not working correctly</li> <li>• it is activated when the door remains open for more than one hours</li> </ul>   |

## 6.1.6 Function

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.

## 6.2 Control Unit CAREL ir33

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.






ir33, ir33 DIN, ir33 power,  
powercompact, powercompact small

### 6.2.1 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   |                               |
| <b>AUX</b> | 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 |                               |
|            | 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 |



| ICON  | FUNCTION         | DESCRIPTION  | Normal operation   |   |   | Start up |
|---|------------------|--|--|---|---|----------|
|   |                  |  | ON   | OFF                                     | BLINK   |          |
|  | 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.  |  |   |   |          |

## 6.2.2 Keyboard



| Icon  | Normal operation   |  | Start up   | Automatic address assignment request  |
|---|--|--|--|---|
|   | pressing the button alone  | pressing together with other buttons   |  |   |
| <br>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 | <b>PRG+SET:</b> if pressed together for more than 5 seconds, accesses the menu for setting the type "C" parameters (configuration) or downloading the parameters.<br><b>PRG+UP/AUX:</b> 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 |
| <br>UP/AUX   | If pressed for more than 1s, activates/deactivates the auxiliary output.   | <b>UP/AUX+DOWN/DEF:</b> if pressed together for more than 5 seconds, activates/deactivates continuous cycle operation.<br><b>UP/AUX +SET:</b> if pressed together for more than 5 seconds, starts the report printing procedure (if the controller is connected to the printer interface).<br><b>UP/AUX +PRG/MUTE:</b> if pressed together for more than 5 seconds, resets any active alarms with manual reset.  |  |   |
| <br>DOWN/DEF | If pressed for more than 5 seconds activates a manual defrost  | <b>DOWN/DEF +UP/AUX:</b> if pressed together for more than 5 seconds activates/deactivates continuous cycle operation.<br><b>DOWN/DEF +SET:</b> 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').  |  |   |
| <br>SET      | If pressed for more than 1 second, displays and/or sets the set point.   | <b>SET+PRG/MUTE:</b> if pressed together for more than 5 seconds accesses the menu for setting the type "C" parameters (configuration) or downloading the parameters.<br><b>SET+DOWN/DEF:</b> 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').<br><b>SET+UP/AUX:</b> if pressed together for more than 5 seconds, starts the report printing procedure (if the controller is connected to the printer interface). |  |   |

### 6.2.3 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.

## 7 MAINTENANCE



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.

### 7.1 Access to the maintenance area

You can only access the internal parts of the machine (***maintenance area***) using the key supplied with the vending machine.



**FIG. 7.1 – Access Key**

## 7.2 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.

### 7.3 Replacing LED-tube

To replace a LED-tube, work as follow:

- Open the door
- Turn off the machine pressing the main switch.
- Take out the LED-tube from the fastening clips.
- Disconnect the LED-tube from is wiring.
- Wire up the new LED-tube and fasten it with the clip.

**After replacement, work as follows:**

- Turn on the machine pressing the main switch.
- Close the door.

**NOTE:** with the door open, the LED's turn off automatically!



LH LED SUPPORT

## 7.4 Cleaning the vending machine

The vending machine should be cleaned in order to keep the machine in good working order. In general, we advise that you:

- Check the vending machine and the surrounding area, check for rust on the outer cabinet and obstructions in the air vents
- Open the vending machine door and check for accumulation of water, signs of rust and humidity around the corners



**CAUTION: NEVER USE PRESSURED WATER CLEANER OR WATER JETS**

## 7.5 Warnings

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

- Cut off the power supply to the machine
- 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
- 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.

## 7.6 General cleaning operations

In order that the machine is in the best working condition it is important it is clean and well kept. Please follow the instruction below:

|   |   |
|---|---|
| <b>Cleaning of painted areas and removal of small scratches</b> | <p>Clean the Vendor with water and soap. The exterior may be waxed with any good automobile wax</p> <p>Small internal signs of corrosion can be removed using sand paper and covering the surface with nitrocellulose lacquer</p> <p>Paint splashes and grease or glazing compounds can be removed using solvent</p>  |
| <b>Cooling area</b>   | <p>Be sure that all vanes and tubings are clean and air passage is free of any obstructions.</p> <p>Condenser and evaporator must be kept clean in order to achieve the full cooling performance. The condenser should be cleaned every three months with a vacuum cleaner and brush. Make sure that all fans and tubes are free and clean.</p> <p><b>Caution</b> When working on the cooling unit: Do not touch the evaporator heater (on outdoor machines only). Contact can cause burns.</p> |
| <b>Product delivery exit</b>                                    | <p>Keep the product exit clean and without deposits</p>   |
| <b>Cleaning of drainage tube</b>                                | <p>Rinse condensate drain hose with clean water or clean with compressed air. Water from the evaporator region must flow freely into the condensate pan next to the compressor.</p>   |
| <b>General precautions</b>                                      | <p>Never use:</p> <ul style="list-style-type: none"> <li>• Cleaning products that are chemically aggressive.</li> <li>• Cleaning products that are abrasive.</li> <li>• Never clean with blades or pointed objects.</li> <li>• Before start of cleaning turn off power supply.</li> <li>• Never clean at high temperatures or under direct sunlight.</li> <li>• Do not wash with water jets.</li> <li>• If using liquid detergent, turn off the power supply.</li> </ul>                        |



## 7.7 Recommended cleaning products

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

- Neutral detergent
- Compressed air (2 bar max.)



**CAUTION**: 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

## 7.8 Cleaning safety devices

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



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

## 8 INFORMATION – DANGER SIGNS

A series of warning messages are written inside all SandenVendo Europe vending machines, this is to make the user is aware of the dangers that exist whilst working on the machine. See following examples:

1) CAUTION: the vending machine must be fitted with a grounding system.

|  |  |  |  |   |
|--|--|--|--|---|
| WARNING<br>This vendor must be properly grounded | ACHTUNG<br>Dieses Gerät muß ordnungsgemäß geerdet werden | ATTENTION<br>Le distributeur doit être connecté à la terre | ATENCIÓN<br>La máquina debe estar correctamente conectada a tierra | ATTENZIONE<br>Il distributore deve essere collegato a terra |
|--|--|--|--|---|

2) Type of gas in the cooling system.

CFC FREE R134A

3) Fuse type and state indicator

F10A/250V

4) DANGER: Mains voltage



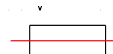
5) Ground connection indicator



6) Alternate current indicator



7) Fuse symbol



8) Lamp indicator



9) Equipment only suitable for internal use indicator



10) ON






11) OFF

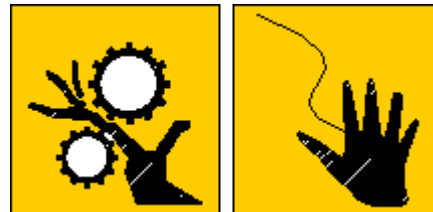


- 12) Vending machine identification and main technical data

Manufacture date:  
Month / Year

|   |   |   |             |
|---|---|---|-------------|
| COSTRUITO DALLA   |   |  |             |
| Vendo Sanden Europe S.p.A.  |   |   |             |
| CONIOLO (ALESSANDRIA)-ITALY   |   |   |             |
| MOD. ....   |   |   |             |
| SERIAL N. ....  |   |   |             |
| ALIMENTATION  |   | V~ Hz   |             |
| NOMINAL POWER   |   | W A   |             |
| ⊗ .x MAY  | W   | ⊗ .x MAY  | W           |
| ⊗ .x MAY  | W   | ⊗ .x MAY  | W           |
| REFRIGERANT   |   | kg  |             |
| MAX. PRESSURE   |   | bar IP  |             |
| CLASS   | °C  | %   | C.F.C. FREE |
|  |  | Made in Italy   |             |

- 13) CAUTION: Hazardous Area pay extreme care whilst operating the vend mechanisms



- 14) CAUTION DANGER AND PROHIBITION: danger of electric shocks and mechanical risks



- 15) Final inspection certificate.

|   |                          |                                      |                          |
|---|--------------------------|--------------------------------------|--------------------------|
| WHEN ORDERING REPLACEMENT PARTS<br>GIVE THE FOLLOWING INFORMATION |                          |                                      |                          |
| MODEL   |                          | _____                                |                          |
| SERIAL NO.  |                          | _____                                |                          |
| FINAL INSPECTION CHECK  |                          |                                      |                          |
| INSULATION TESTED   | <input type="checkbox"/> | HIPOT. 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"/> |

## 9 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.



**CAUTION: IN CASE OF FAILURE AND/OR POOR OPERATION ONLY CONTACT THE TECHNICAL SUPPORT PERSONNEL AT OUR SERVICE CENTRE**



**MAY WE REMIND YOU THAT OUR AFTER SALES SERVICE CENTRE IS AVAILABLE FOR ANY TECHNICAL INFORMATION YOU MAY NEED.**

| PROBLEM   | POSSIBLE CAUSES                                    | RECOMMENDED SOLUTIONS  |
|---|--|--|
| <b>All coins returned.</b>                        | No Power to the Vending machine                    | Check the electrical plug, check power supply outlet   |
|   | No Power to the Coin Mechanism.                    | Check that the connection wiring is not faulty Check the coin changer (see manual coin changer)                          |
|   | The return lever is not returning completely       | check the coin return mechanism  |
|   | Dirty coin paths.                                  | Clean the coin mechanism validate with an approved detergent. Dry completely.  |
|   | Machines display indicated : sold out.             | Check error codes, CTRL problem ! check elevator / product detection /Motor driver boards                                |
| <b>Does not accept high value coins</b>           | Display indicates: Use correct change              | Change tubes low. Replenish coins in change tubes. Check the functionality of the coin tubes ( see coin changer manual ) |
| <b>Does not count the vends</b>                   | Door switch problem                                | Check door switch function, adjust the door switch bracket   |
| <b>Delivery motor on selection is not running</b> | The motor had been overloaded and is out off order | Check motor operation in the test mode. Check the selection set up /spiral pitch   |
|   | Motor is not assigned to any selection             | Run STOS program and check again the motor   |
|   | Connection problem                                 | Check the motor connections  |
|   | Defective motor                                    | Replace motor  |

| PROBLEM   | POSSIBLE CAUSES   | RECOMMENDED SOLUTIONS  |
|---|---|--|
| <b>The cooling system does not work.</b>                      | 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   |
| <b>The compressor works, but the temperature is not ideal</b> | The condenser is dirty.   | Check if the condenser fins are dirty or obstructed.<br>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.<br>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.<br>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   |
| <b>Evaporator covered in ice.</b>                             | Evaporator fan does not work.                                   | Check the circuit. Replace the motor and check that the fan is not blocked.<br>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.<br>Check that the product delivery door is closing correctly after product delivery .      |
| <b>The compressor runs, is warm but no cold is</b>            | Check the end of the capillary tube                             | If no ice is produced after 5 minutes function, there is a refrigerant leakage.<br>Replace the cooling unit.   |



**ONLY TECHNICIANS FROM SANDENVENDO EUROPE OR AUTHORISED 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.**

## 10 STORAGE AND DISPOSAL

### 10.1 Storage

Should the vending machine not be used immediately or is stowed for long periods, check that it is correctly packed and positioned vertically.

It should be stored in a closed, but well ventilated room and which does not have particular characteristics hazardous to the machine's components, in particular the electronic ones.

Protect unpainted parts against corrosion with greases or special sprays, if necessary stow them with dehydrating salts.

After long periods of inactivity, the machine requires controls and special checks that cannot be described in this context, please request instructions from the manufacturer.

### 10.2 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 2002/95/CE**, and **Directive WEEE 2002/96/CE**, 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.



**CAUTION: THE MANUFACTURER IS NOT RESPONSIBLE FOR DAMAGES TO THE ENVIRONMENT CAUSED BY ILLEGAL WASTE.**



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


**[www.sandenvendo.com](http://www.sandenvendo.com)**

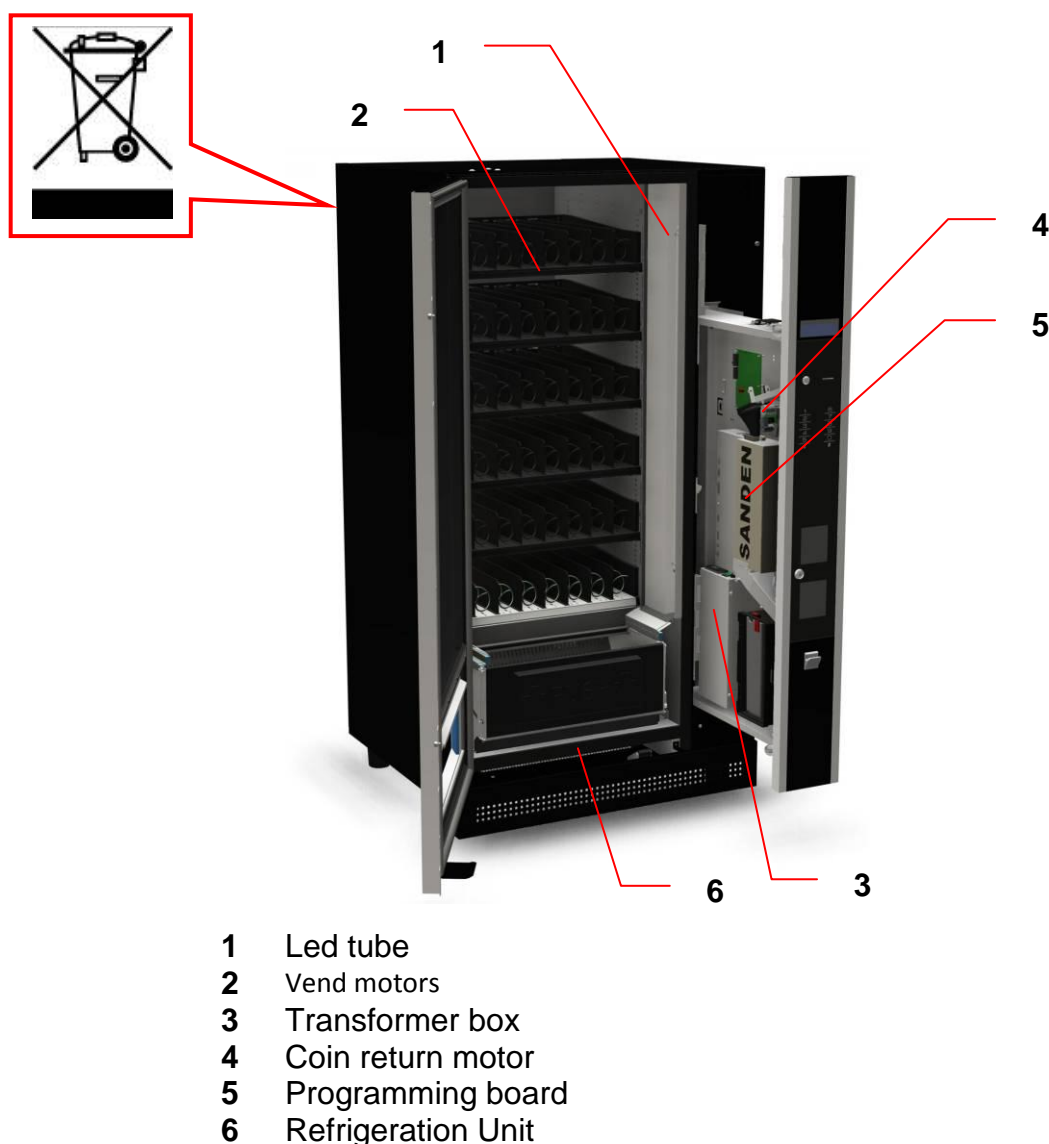
### 10.3 Person in charge of disposal

Directive **WEEE** 2002/96/CE 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.



### 10.4 Sanctions

The sanctions in case of the illegal DISPOSAL of **WEEE** waste are indicated in the national decrees related to the Directive **ROHS** 2002/95/CE, Directive **WEEE** 2002/96/CE.



| Revision | Date       | Change   | Page |
|----------|------------|--|------|
| 0        | 20/05/2013 | Manual Creation  | All  |
| 1        | 06/10/2014 | Update point 1 <i>General Information</i>                                    |      |
|          |            | Change some image  |      |
|          |            | Change heading and footer  |      |
|          |            | Update point 7.6 General Cleaning Operation                                  |      |
|          |            | Update Service Centers page  |      |
|          |            | Update description of point 7 Maintenance                                    |      |
|          |            | Update point 5.3 Loading products  |      |
|          |            | Added point 5.10 Motorized Locking for Delivery Eyelet (optional)            |      |
| 2        | 12/06/2015 | Removed Slave models   |      |
|          |            | Added Outdoor version  |      |
| 3        | 15/12/2015 | Added model SC8, SC6, SMX, SM8 and SM6                                       |      |
|          |            | Update Declaration of Conformity page  |      |
|          |            | Added point 3.8 How to split the vending machine model SC8 - SM8 - SC6 - SM6 |      |
| 4        | 07/09/2016 | Updated point 2.4.1 Outdoor Components                                       |      |
|          |            | Updated point 2.5 Referral programming manual                                |      |
|          |            | Updated point 3.1 Transport and positioning                                  |      |
|          |            | Added point 3.3.1 Removing the wooden bases on models SC8-SC6-SM8-SM6        |      |
|          |            | Deleted Declaration of Conformity page                                       |      |
| 5        | 21/12/2016 | Updated point 2.2 Technical features   |      |